Vertex Standard

VX-1210

Service Manual

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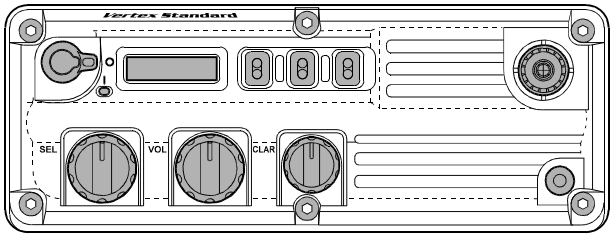


Introduction

This manual provides technical information necessary for servicing the VX-1210 Transceiver.

Servicing this equipment requires expertise in handling surface-mount chip components. Attempts by non-qualified persons to service this equipment may result in permanent damage not covered by the warranty, and may be illegal in some countries.

Two PCB layout diagrams are provided for each double-sided circuit board in the transceiver. Each side of thr board is referred to by the type of the majority of components installed on that side (“leaded” or “chip-only”). In most cases one side has only chip components, and the other has either a mixture of both chip and leaded components (trimmers, coils, electrolytic capacitors, ICs, etc.), or leaded components only.

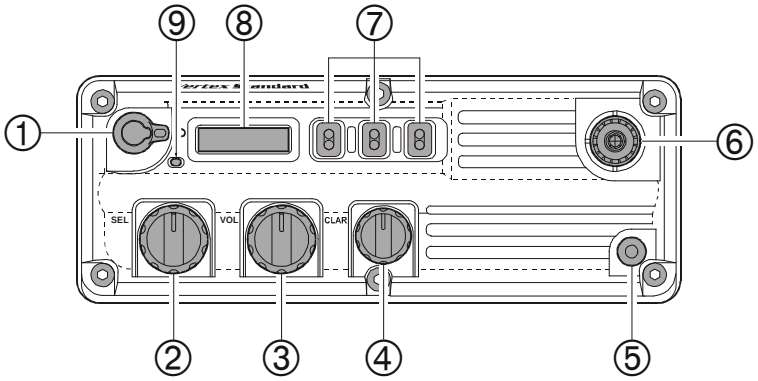
While we believe the technical information in this manual to be correct, VERTEX STANDARD assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated.

Contents

Operating Manual Reprint 2
Specifications 10
Installation Manual Reprint 11
SEL-1200 (Option) 11
ATU-1210 (Option) 12
DSV-1200 (Option) 14
Exploded View & Miscellaneous Parts 15
Block Diagram 17
Interconnection Diagram 18
Circuit Description 19
Alignment 21

Board Unit (Schematics, Layouts & Parts)
MAIN Unit 29
CNTL Unit 45
PA Unit 57
Display Unit 65
Connection Unit 67
MIC-CONN Unit 68
BATT-CONN Unit 69
TUNER Unit (ATU-1210: Option) 71
SELCALL Unit (SEL-1200: Option) 74

FRONT PANEL CONTROLS AND SWITCHES



① **POWER** Switch

Turn this knob clockwise to turn the radio on. Counterclockwise rotation will turn the radio off.

② **SEL** Knob

This 12-position detented rotary switch selects the memory channels, and tune the operating frequency, if your transceiver is configured for use of the VFO feature.

③ **VOL** Knob

This control adjusts the audio volume level. Clockwise rotation increases the volume level.

④ **CLAR** ("Clarifier") Knob

This control allows you to offset the receiving frequency by up to 200 Hz in 10 Hz steps (SSB, CW, and DATA modes), or up to 400 Hz in 20 Hz steps (AM mode). This control is helpful in case the incoming signal is drifting.

⑤ **GND** Terminal

If an earth ground connection is available at the operating site, this terminal may be connected to it to provide improved performance and safety.

⑥ **ANT** Jack

This jack accepts a 50Ω antenna. If the optional **ATU-1210** internal antenna tuner is enabled, the optional **YHA-61** whip antenna (or **FHA-27** folding whip antenna with **GN-1210** goose neck) can be connected to this jack directly. Use only a type PL-259 (type **M**) plug.

⑦ **TOGGLE** Switches

These **TOGGLE** switches can be customized, via programming by your Vertex Standard Dealer. The available features for these switches are described on page 6.

⑧ LCD (Liquid Crystal Display)

The current operating channel is displayed here.

⑨ LED Indicator

This LED indicates the current status of the transceiver.

Glowing Green:	Busy Receive Channel (or Squelch off).
Glowing Yellow:	Transmission in progress.
Blinking Yellow:	Antenna mismatching problem (High SWR condition).
Blinking Red:	Battery voltage is nearing depletion. Prepare to replace the battery.
Glowing Red:	Battery voltage is critically low. Replace the battery immediately.

Note

Generally, the **SEL** knob tunes the VFO frequency in 100 Hz steps when you are operating in the VFO mode. If you wish to tune more quickly, using larger tuning steps, press the **SEL** knob downward momentarily, then rotate the **SEL** knob. This allows you to tune the VFO frequency in 5 kHz steps. When the transceiver is in this "fast" tuning step mode, the "**F**" character will appear on the left side of the display.

Pressing the **SEL** knob downward again causes the transceiver to return to its regular tuning steps (100 Hz per step).

MH-50B7A SWITCHES

① **PTT** Switch
Press this switch to transmit, and release it to receive.

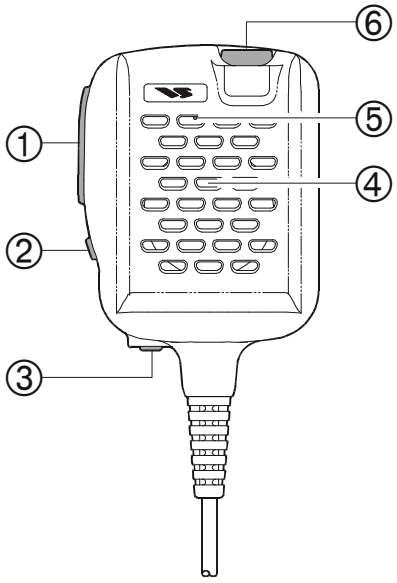
② Dummy Switch
This switch is not activated in this transceiver.

③ **EAR** Jack
You may connect an Earphone to this jack, for improved listening under noisy conditions. Earphone operation requires that the **MH-50B7A**'s loudspeaker be enabled via programming by your Vertex Standard dealer.
When a plug is installed into this jack, the **MH-50B7A**'s internal loudspeaker will be disabled.
Note: The protective rubber cover over the jack must be pulled up to access the jack. Press it back over the jack when does not in use, to protect the inside of the microphone from dust and water.

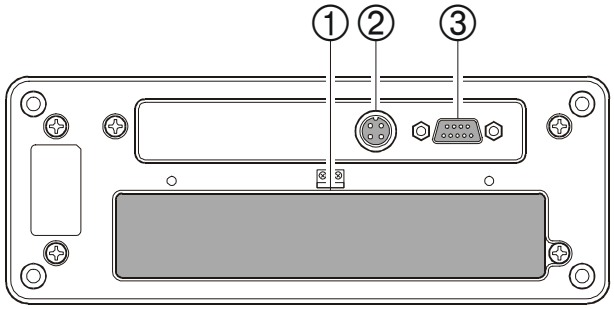
④ Speaker
The loudspeaker for the **MH-50B7A** is located here.

⑤ Microphone
Speak across this opening in a normal voice level while pressing the **PTT** switch.

⑥ Speaker Volume Button
Press this switch to reduce the output level from the **MH-50B7A**'s loudspeaker, if the **MH-50B7A**'s loudspeaker has been enabled (via programming by your Vertex Standard dealer).



REAR PANEL CONNECTORS



① Battery Compartment
This compartment houses allows installation of the **FNB-66LI** Lithium-Ion Battery Pack.

② **CHG** Jack
This 4-pin jack allows connection to the optional **CD-17** Charger.

③ **AUX** Jack (Option)
This optional 9-pin DB-9 jack provides AFSK input/output and CW keying to allow easy interfacing to data communications modem devices.

Note: The protective cover over the **CHG** jack and **AUX** jacks must be removed to access the jacks. Replace it back over the jacks when they are not in use, to protect the inside of the transceiver from dust and water.

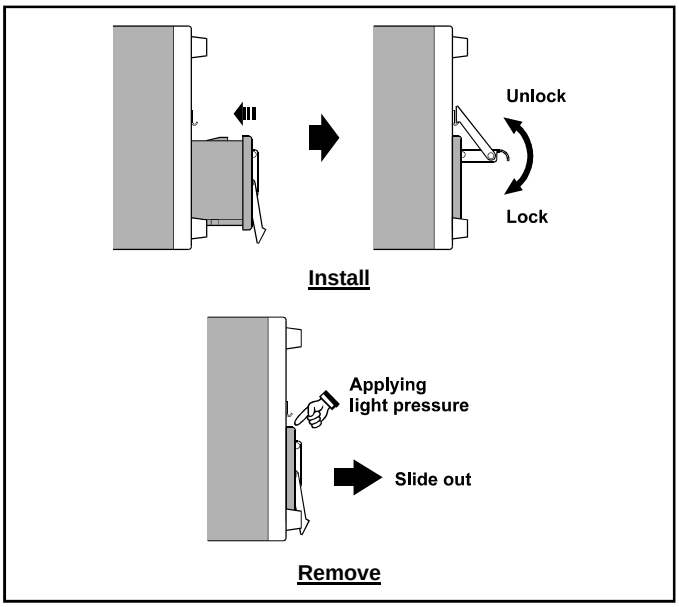
OPERATION

BEFORE YOU BEGIN

Battery Pack Installation and Removal

- ❒ To install the Battery Pack, insert the Battery Pack into the battery compartment on the bottom of the radio, then secure the Battery Pack using the Latch Clip on the Battery Pack.
- ❒ To remove the Battery Pack, turn the radio off and remove any protective cases, then unlatch the clip from the Battery Pack. Place your thumbs on the edge of the Battery pack, then slide out the Battery Pack from the radio while applying light pressure onto it.

Do not attempt to open the Rechargeable Battery Pack, as personal injury or damage to the pack could occur if a cell or cells become accidentally short-circuited.



Battery Charging

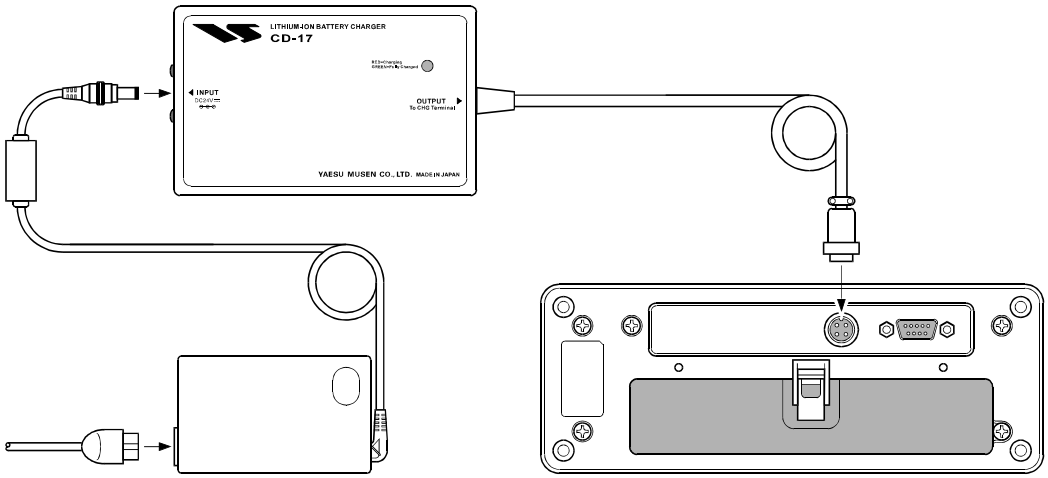
It is necessary to charge the Battery Pack fully before its first use.

1. Install the Battery Pack into the transceiver. Ensure that the transceiver is switched off.
2. Connect the cable plug from the **PA-26** AC Adapter into the **INPUT** jack on the **CD-17** Charger, then insert the cable plug from the **CD-17** Charger into the **CHG** terminal on the bottom of the transceiver.
3. Connect the AC cable into the **AC** jack on the **PA-26** AC Adapter, then plug the **PA-26** AC Adapter into the AC line outlet.
4. The LED indicator on the **CD-17** Charger will glow red (Charging) while the battery is being charged. When charging is completed, the red LED indicator will change to green (Fully Charged). A fully-discharged pack will be charged completely in about five hours.
5. Unplug the cable from the **CHG** terminal, then disconnect the **PA-26** AC Adapter from the AC line outlet.

❒ ***Do not connect an improper Charger into the*** **CHG** ***terminal.***

❒ ***Do not forget to replace the protective cover.***

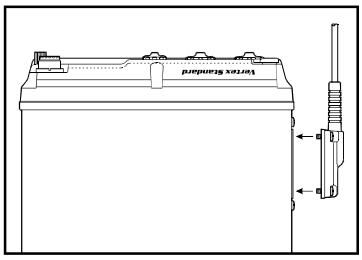
❒ ***In rare instances, the*** **CD-17** ***LED indicator may glow Green (apparently indicating "Fully Charged") immediately when you charge a fully-discharged pack. If this should happen, unplug the cable from the*** **CHG** ***terminal, wait a few seconds, then re-insert the cable plug into the*** **CHG** ***terminal. Normal charging should then begin.***



OPERATION

PRELIMINARY STEPS

1. Install a charged Battery Pack onto the transceiver, as described previously.
2. Connect the **MH-50B7A** Speaker/Microphone onto the transceiver; align the connector of the **MH-50B7A** to the connector on the left side of the transceiver body, then secure the connector using the screws supplied with the **MH-50B7A** Speaker/Microphone.



3. If you use this transceiver with the optional **YA-30** antenna kit, set up the **YA-30** antenna first, then connect the coaxial plug from the **YA-30** to the **ANT** jack of the transceiver.
   ※: When using the **YA-30** dipole antenna, the built-in antenna tuner is not used.
4. If you use this transceiver with the optional whip antenna (**YHA-61** or **FHA-27**w/**GN-1210**), connect the whip antenna onto the **ANT** jack of the transceiver, then connect a good earth ground onto the **GND** terminal of the transceiver using heavy braided cable.

Note: The **VX-1210** can be used either with a Dipole Antenna (like the **YA-30**), or the whip antenna (like the **YHA-61**), depending on the programming of the transceiver by your Vertex Standard dealer. For further details, contact your Vertex Standard dealer.

WHIP ANTENNA SETUP

1. Connect the whip antenna (**YHA-61** or **FHA-27**w/**GN-1210**) and earth ground to the transceiver, as described previously.
2. Press and hold in the **SEL** knob; while holding it in, turn the transceiver on by rotating the **POWER** switch clockwise. "**TU ADJ**" will appear in the display for three seconds, then the display will return to indication of the channel. Once the radio turns on, release the **SEL** knob. The built-in antenna tuner is now engaged.
3. Now, press and hold in the **SEL** knob for 1/2 second to initiate antenna tuning.
4. Repeat step 3 on all operating channels.
5. Turn the transceiver off to save the new settings.

You may set up the whip antenna using the **TOGGLE** switch, if your transceiver's **TOGGLE** switch has been assigned to the Antenna Tuning feature. See page 7 for details regarding Antenna Tuning.

※: Requires Optional **ATU-1210** Built-in Antenna Tuner and **YHA-61** Whip Antenna or **FHA-27** Folding Whip Antenna w/**GN-1210** Goose Neck.

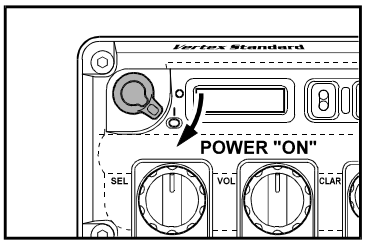
Important Note!

- ❒ If you use the **VX-1210** with the optional whip antenna (**YHA-61** or **FHA-27** w/**GN-1210**), ***MUST BE*** connect a good earth ground onto the **GND** terminal of the **VX-1210** using heavy braided cable to prevent electrical shock and proper performance.
- ❒ The optional whip antenna **YHA-61** is for use only short distance communications. We recommend that using with the optional whip antenna **FHA-27** w/**GN-1210**, optional dipole antenna **YA-30** or other antenna which having the antenna gain, if you wish to communicate with the faraway station.

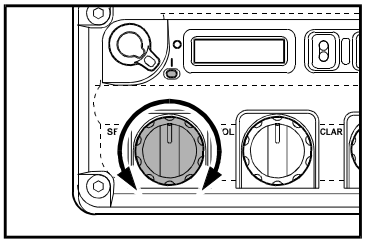
OPERATION

OPERATION QUICK START

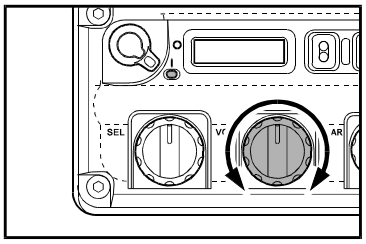
1. Turn the transceiver on by rotating the **POWER** switch clockwise.



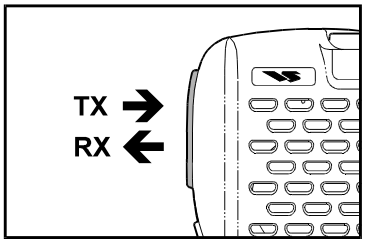
2. Rotate the **SEL** knob to select the desired Memory Channel.



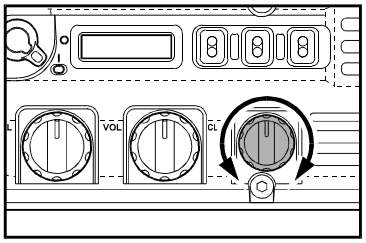
3. Rotate the **VOL** knob to set a comfortable volume level.



4. To transmit, press and hold in the microphone's **PTT** switch, and speak into the microphone in a normal voice level. To return to the receive mode, release the **PTT** switch.



5. If the frequency of the station you are receiving should start to drift, rotate the **CLAR** knob to follow the drifting signal; this does *not* cause your radio's transmitting frequency to move.



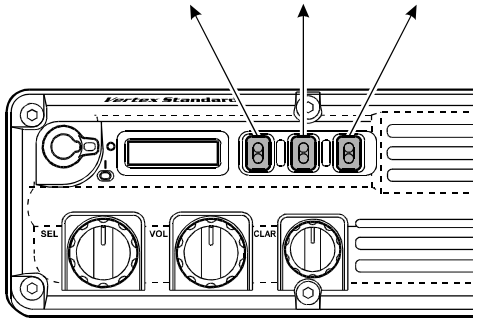
ADVANCED OPERATION

TOGGLE Switch Functions

The **VX-1210**'s **TOGGLE** switch functions can be customized, via programming by the dealer. Some features may require the purchase and installation of optional internal accessories. The possible **TOGGLE** switch programming features are illustrated at the bottom, and their functions are explained on the next page. For further details, contact your Vertex Standard dealer.

For future reference, check the box next to each function that has been assigned to the toggle switch on your particular radio, and keep it handy.

Functions	**A** Switch	**B** Switch	**C** Switch
SELCALL Function	N/A		
High/Low Power Select		N/A	N/A
Noise Blanker on/off		N/A	N/A
Antenna Tuner on/off		N/A	N/A
Antenna Tuning	N/A		
Encryption on/off		N/A	N/A
LAMP on/off			
Display Select (Tag/Frequency)		N/A	N/A
HAIL on/off	N/A		
VFO/Memory Select	N/A		
TELCALL Function	N/A		
Squelch on/off		N/A	N/A
Speaker Select		N/A	N/A
None			



Description of TOGGLE Switch Functions

SELCALL Function

Enables/disables the (optional) Selcall Unit which allow paging and selective calling, if installed. Details for the SELCALL feature are described on next page.

High/Low Power

Selects the transmitter power output level between "High" or "Low."

You will get much longer battery life by switching to Low power operation.

Noise Blanker on/off

Enables/disables the IF Noise Blanker. When the Noise Blanker is activated, it will reduce many different types of manmade impulse noise (but not atmospherics).

Tuner on/off

Enables/disables the Automatic Antenna Tuner.

Antenna Tuning

Press and hold the assigned **TOGGLE** switch into the "ON" position for 1/2 second to initiate antenna tuning. The "**WAIT**" indicator will appear on the display during tuning, and will disappear when a match has been achieved.

If the tuning is successful, the "**TUNE OK**" indication will appear on the display, and the radio will emit a "beep."

Encryption on/off

Enables/disables the (optional) voice encryption unit.

When the voice encryption unit is enabled, the clarifier is disabled.

Remember that disabling the encryption will mean that your transmission are no longer secure. Return to the encrypted mode as soon as possible, and do not discuss any critical or confidential information while in the non-encrypted mode of operation.

LAMP on/off

This feature operates differently, depending on the switch type assigned to this function.

Toggle Switch Type (Switch "**A**")

Move the assigned **TOGGLE** switch into the "ON" position to illuminate the LCD lamp continuously. To disable the LCD lamp, return the assigned **TOGGLE** switch to the "OFF" position.

Momentary Switch Type (Switch "**B**" or "**C**")

Press this switch momentarily, (I) to illuminate the LCD lamp for three seconds, after which the lamp will automatically shut off, or (II) to illuminate the LCD lamp until you press this switch once more (no time limit). These functions are determined via programming by your Vertex Standard Dealer.

LCD Display (Tag/Frequency)

Selects the channel frequency display format between (I) the channel's frequency, or (II) the channel's Alpha/Numeric label (name).

HAIL Function

Turn on the assigned **TOGGLE** switch to activate the "HAIL" feature which emits a loud "Alarm" sound. Use this feature if you want a quick way of alerting other group members as to a dangerous situation.

VFO/MR Select

Selects the frequency control technique between (I) the "VFO" or (II) the "Memory System."

- ❒ Press the assigned **TOGGLE** switch momentarily to toggle frequency control between the VFO and Memory Systems.
- ❒ Press and hold the assigned **TOGGLE** switch in the "ON" position for 1/2 second to copy the memory channel data to the VFO. You may then rotate the **SEL** knob to tune the frequency manually.

TELCALL Function

Enables/disables the TELCALL Function (dialing for Autopatch,) if the optional SELCALL Unit is installed. Details for the TELCALL function are described on page 8.

Squelch on/off

Turn the assigned **TOGGLE** switch to the "upper" position to keep the receiver quiet until a signal is received. Turn the assigned **TOGGLE** switch to the "lower" position to "open" the RF squelch manually, allowing you to listen for very weak signals.

To Adjust the Squelch threshold level:

1. Rotate the **SEL** knob to select a clear channel (where no signals are present).
2. Turn the **TOGGLE** switch (assigned to the "Squelch on/off" feature) to the "upper" position.
3. Press and hold in the **SEL** knob for 5 seconds to enable modification of the squelch threshold level.
4. Rotate the **SEL** knob to the point where the background noise just disappears; this is point of maximum sensitivity to weak signals.
5. Press the **SEL** knob momentarily to save the new setting and exit to normal operation.

Speaker Select

Switches the audio output between the internal speaker or the optional **MH-50B7A** Speaker/Microphone.

ADVANCED OPERATION

SELCALL Operation

The **VX-1210** SELCALL feature allow paging and selective calling using 4-digit codes transmitted as an FSK format. Your receiver remains silent until it receives 4-digit codes that match those stored in a dedicated code memory.

When the SELCALL feature is activated, the clarifier is disabled.

Receiving a SELCALL

When a SELCALL is decoded, an alert ringer sounds for 30 seconds, and appear the ID code of the calling stations (such as "ID1234") will appear in the display. If a private SELCALL is detected, the **VX-1210** send the answer back signal to the calling station automatically before the alert ringer sounds.

Unless you respond, the alert beeper will be heard every three seconds, and the "[**CALL RECEIVED**] ***plus*** the [calling station's ID Code]" will appear in the display until you do respond.

Sending a SELCALL

1. Press the **TOGGLE** switch (assigned to the "SELCALL" feature) momentarily to enable selection of the code memory.
2. Rotate the **SEL** knob to select (display) the code memory of the station you want to SELCALL.
3. Press and hold in the **TOGGLE** switch (assigned to the "SELCALL" feature) for 1/2 second to send the SELCALL.

Manual Sending

If your **VX-1210** has not been programmed with the 4-digit codes for the "SELCALL" feature into the code memory, you can pre-program and send the 4-digit code manually as a temporary measure.

Here is the SELCALL manual sending procedure:

1. Press the **TOGGLE** switch (assigned to the "SELCALL" feature) momentarily.
2. Rotate the **SEL** knob to select (display) "**AUX xxxx**."
3. Press and hold in the **SEL** knob for 1/2 second, then rotate the **SEL** knob to select the first number of the 4-digit code you want to send.
4. Press the **SEL** knob momentarily to step to the next digit's place. Use the **SEL** knob again to select a number and to step to the next entry.
5. After entering all four numbers you want to send, press and hold in the **SEL** knob for 1/2 second to save the 4 digits into the code memory temporarily.
6. Press and hold in the **TOGGLE** switch (assigned to the "SELCALL" feature) for 1/2 second to send the SELCALL.

TELCALL Operation

The **VX-1210** allows easy "TELCALL" Operation for Autopatch dialing.

When the "TELCALL" feature is activated, the clarifier is disabled.

Sending a TELCALL

1. Press the **TOGGLE** switch (assigned to the "SELCALL" feature) momentarily to enable selection of the code memory.
2. Rotate the **SEL** knob to select (display) the code memory of the station you want to SELCALL.
3. Press the **TOGGLE** switch (assigned to the "TELCALL" feature) momentarily to enable to TELCALL feature.
4. Rotate the **SEL** knob to select the Autopatch memory string you wish to send.
5. Press and hold in the **TOGGLE** switch (assigned to the "TELCALL" feature) for 1/2 second to send the TELCALL (corresponding to a telephone number).
6. When the communication is finished, press and hold in the **TOGGLE** switch (assigned to the "TELCALL" feature) for 1/2 second, while holding in the **PTT** switch to send the "Hang-up" signal.

Manual Sending

If your **VX-1210** has not had the telephone number stored into the Autopatch memory, you can pre-program and send the telephone number temporarily.

Here is the manual sending procedure:

1. Call the station that is connected to the telephone system via the SELCALL feature first, as described previously.
2. Press the **TOGGLE** switch (assigned to the "TELCALL" feature) momentarily.
3. Rotate the **SEL** knob to select (display) "**AUX xxxx**."
4. Press and hold in the **SEL** knob for 1/2 second, then rotate the **SEL** knob to select the first digit of the telephone number you want to send.
5. Press the **SEL** knob momentarily to step to the next digit's place. Use the **SEL** knob again to select a number and to step to the next entry.
6. After entering all digits of the telephone number you want to send, press and hold in the **SEL** knob for 1/2 second to save the telephone number into the Autopatch memory temporarily.
7. Press and hold in the **TOGGLE** switch (assigned to the "TELCALL" feature) for 1/2 second to send a TELCALL (corresponding to the telephone number).

ACCESSORIES & OPTIONS

Supplied Accessories

Speaker/Microphone	**MH-50B7A**
Lithium-Ion Battery Pack	**FNB-66LI** (14.4 V, 4800 mAh)
Rapid Charger	**CD-17**
AC Adapter	**PA-26**

Available Options

Internal Antenna Tuner	**ATU-1210**
SELCALL Unit	**SEL-1200**
Whip Antenna	**YHA-61**
Folding Whip Antenna	**FHA-27** (Requires **GN-1210**)
Goose Neck Connector	**GN-1210**
Dipole Antenna (T2FD type)	**YA-30**
Shoulder Bag	**CSC-78**
D-SUB 9-pin Connector Unit	**DSV-1200**
Service Kit	**SVC-1200**

Specifications

General

Frequency Range:	RX: 0.5 ~ 30 MHz, TX: 1.6 ~ 30 MHz
Emission Modes:	A1A (CW), J3E (LSB/USB), H3E (AM), F1B (AFSK)
Synthesizer Steps:	10 Hz
Antenna Impedance:	50 Ω, Unbalanced
Operating Temperature Range:	–30° C to +60° C
Frequency Stability:	±1 ppm
Power Requirements:	DC 14.4V Lithium-ion Battery
Current Consumption:	Receive (Saver off) 0.5 A, Receive (Saver on) 0.1 A, Transmit (20 W) 5 A, Transmit (5 W) 3 A
Case Size:	193 (W) x 74 (H) x 274 (D) mm
Weight (approx.):	3.2 kg with FNB-66LI Lithium-Ion Battery Pack

Transmitter

Power Output:	20 W/5 W (J3E/A1A/F1B), 10 W/2.5 W (H3E) (Selectable)
Modulation Type:	Balanced Modulator (SSB: J3E), Early Stage (Low Level) (AM: H3E)
Spurious Radiation:	56 dB down (Harmonics)
Carrier Suppression:	55 dB
Undesired Sideband Suppression:	55 dB @ 1.5 kHz tone
Audio Response (A3J):	350 to 2650 Hz (–6 dB)
3rd-order IMD:	–31 dB
Microphone Impedance:	2 kΩ, condenser

Receiver

Circuit Type:	Double Conversion Superheterodyne
Intermediate Frequencies:	47.055 MHz & 10.7 MHz
Sensitivity:	0.25 µV (J3E/A1A, 10 dB S/N)
IF Rejection:	80 dB
Image Rejection:	80 dB
Selectivity (–6 dB/–60 dB):	2.4 kHz/5.0 kHz
Audio Output:	At least 1.5 W into 4 Ω @ 10% THD
Clarifier Adjustment Range:	±200 Hz (J3E/A1A/F1B), ±400 Hz (H3E)

Specifications are subject to change without notice or obligation.

SEL-1200 INSTALLATION MANUAL

Installation

- ❒ Make sure that the transceiver is off. Remove the Battery Pack, Microphone, and Antenna from the transceiver.
- ❒ Referring to Figure 1, remove the two screws from the left side of the transceiver.
- ❒ Referring to Figure 2, remove the five screws from the rear panel of the transceiver.
- ❒ Draw off the rear panel and case from the transceiver body.
- ❒ Referring to Figure 3 & 4, connect the supplied connection cable between **J1017** on the **MAIN UNIT** and **J2013** on the **CNTL UNIT**, then route the connection cable as shown in the drawing.
- ❒ Affix the **SEL-1200** SELCALL Unit onto the **MAIN UNIT**, using the supplied double-sided adhesive tape, then connect the 3-pin plug from the **SEL-1200** to **J1013** on the **MAIN UNIT** (Figure 4).
- ❒ Replace the case and rear panel with its seven screws, using care to avoid pinching or damaging the connecting wires and wounding the **MIC** jack.
- ❒ Connect the Battery Pack to the transceiver.

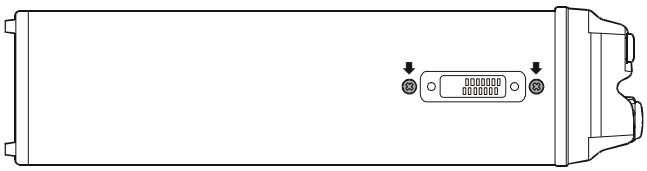


Figure 1

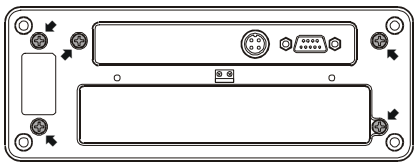


Figure 2

IMPORTANT NOTE!

Do not touch the potentiometer nor the jumper plug of the **SEL-1200**. The **SEL-1200** is carefully aligned at the factory for the specified performance.

Programming

- ❒ Connect the Microphone Box and Programming Cable of the **SVC-1200** Service Kit to the computer's serial port and the transceiver's **MIC** jack.
- ❒ Start the **CE42** Programming Software, then upload the current programming data from the transceiver via the "**Read CH Data**" menu which appears when you press the ([**F4**]: **Transfer**) key.
- ❒ Press the ([**F3**]: **Option**) key to invoke a pop-up window, then select the "**Sel Call Unit**" item, and change its setting to "**on**."
- ❒ Program the SELCALL features (such as the "**Sel Call ID**," "**Sel Call Memory**," etc.), if needed.
- ❒ Press the ([**F3**]: **Option**) key again to close the pop-up window, then turn on the SELCALL feature (on the main screen) on the channel(s) where you wish to operate.
- ❒ Download the revised programming data to the transceiver from the computer via the "**Write CH Data**" menu, which appears when you press the ([**F4**]: **Transfer**) key.
- ❒ Installation and programming are now complete.
- ❒ Disconnect the Programming Cable from the transceiver's **MIC** jack.

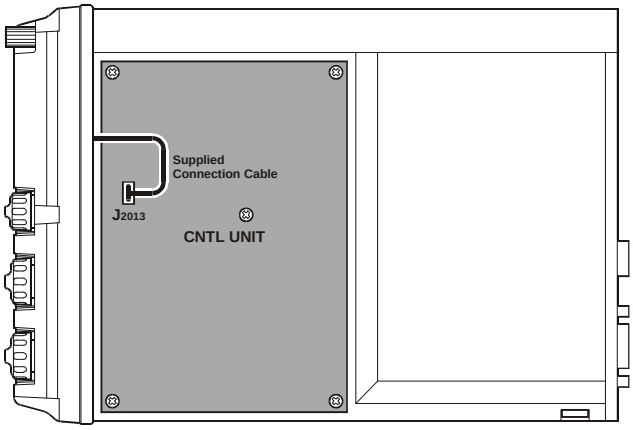


Figure 3

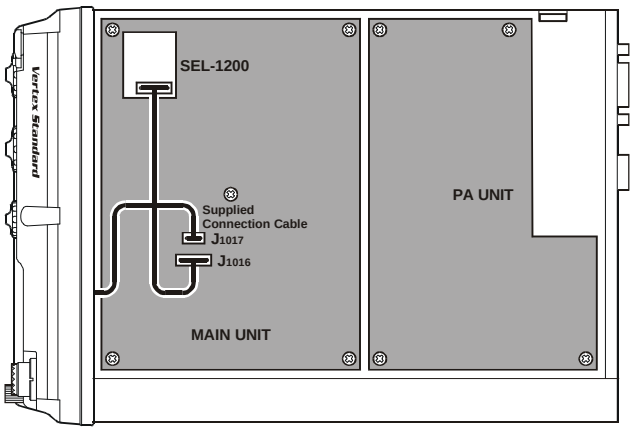


Figure 4

ATU-1210 INSTALLATION MANUAL

Installation

- ❒ Make sure that the transceiver is off. Remove the Battery Pack, Microphone, and Antenna from the transceiver.
- ❒ Referring to Figure 1, remove the two screws from the left side of the transceiver.
- ❒ Referring to Figure 2, remove the five screws from the rear panel of the transceiver.
- ❒ Draw off the rear panel and case from the transceiver body.
- ❒ Referring to Figure 3, disconnect the coaxial cable from **J3005** on the **PA UNIT**.
- ❒ Referring to Figure 4, disconnect the coaxial cable from **J8101** on the **CONNECTION UNIT**, then remove two screws affixing the **CONNECTION UNIT** and detach the **CONNECTION UNIT** from the transceiver.
- ❒ Mount the **ATU-1210** Internal Antenna Tuner to the transceiver using the supplied five screws, then connect the coaxial cable (which was disconnected from **J8101** in the previous step) to **J1001** on the **ATU-1210** (Figure 5).
- ❒ Referring to Figures 5 and 6, route the coaxial cable from **JP1002** on the **ATU-1210** as shown in the drawing, then connect this cable to **J3005** on the **PA UNIT**.
- ❒ Referring to Figures 5, 6, and 7, route the connection cable from **JP1001** on the **ATU-1210** as shown in the drawing, then connect it to **J2010** on the **CNTL UNIT**.
- ❒ Bundle the cables using the two supplied Cable Ties (Figure 6).
- ❒ Replace the case and rear panel with its seven screws, using care to avoid pinching or damaging the connecting wires and wounding the **MIC** jack.
- ❒ Connect the Battery Pack to the transceiver.

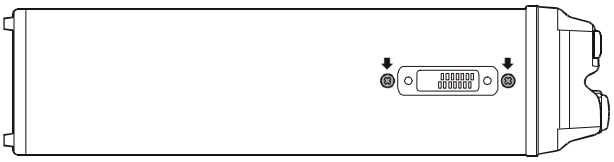


Figure 1

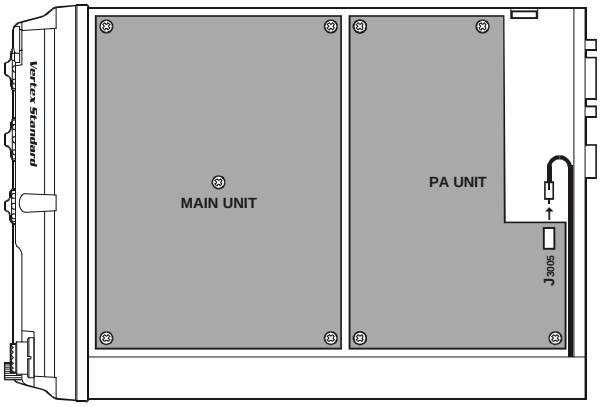


Figure 3

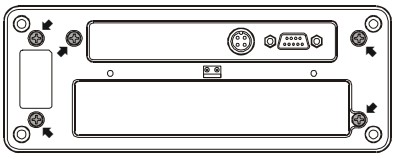


Figure 2

Programming

- ❒ Connect the Microphone Box and Programming Cable of the **SVC-1200** Service Kit to the computer's serial port and the transceiver's **MIC** jack.
- ❒ Start the **CE42** Programming Software, then upload the current programming data from the transceiver via the "**Read CH Data**" menu, which appears when you press the ([**F4**]: **Transfer**) key.
- ❒ Press the ([**F3**]: **Option**) key to invoke a pop-up window, select the "**Tuner Unit**" item, and then change its setting to "**on**."
- ❒ Press the ([**F3**]: **Option**) key again to close the pop-up window, then turn on the "Tune Mode" (on the main screen) on the channel(s) where you wish to operate.
- ❒ Download the revised programming data to the transceiver from the computer via the "**Write CH Data**" menu, which appears when you press the ([**F4**]: **Transfer**) key.
- ❒ Installation and programming are now complete.
- ❒ Disconnect the Programming Cable from the transceiver's **MIC** jack.

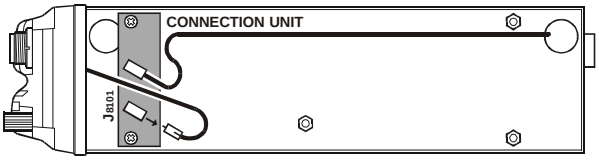


Figure 4

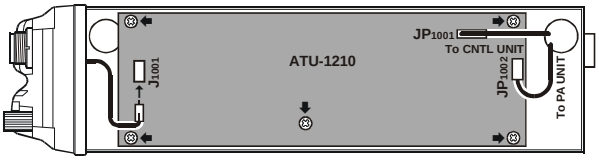


Figure 5

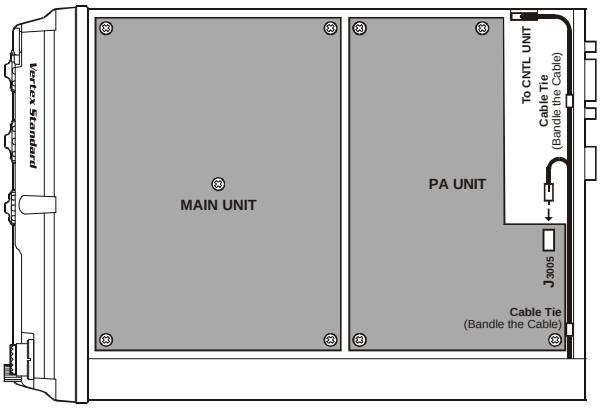


Figure 6

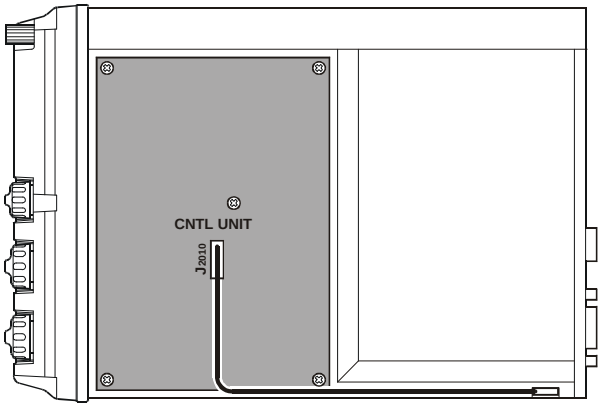
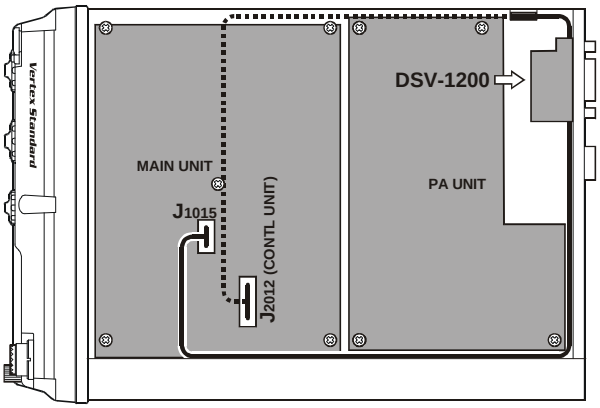


Figure 7

DSV-1200 INSTALLATION MANUAL

Installation

- ❒ Turn the transceiver off, remove the Battery Pack from the transceiver.
- ❒ Disconnect the Microphone from the **MIC** Jack.
- ❒ Remove the five screws affixing the Rear Panel, and remove the Rear Panel.
- ❒ Remove the two screws which located on the **MIC** Jack on the left side of the transceiver.
- ❒ Slide the transceiver cover toward the rear to remove it.
- ❒ Remove the two screws affixing the dummy cover on the rear chassis, and remove the dummy cover.
- ❒ Mount the **DSV-1200** to the rear chassis using the supplied two hex screws.
- ❒ Connect the 3-pin connector from the **DSV-1200** to the **J1015** on the MAIN UNIT, and connect the 7-pin connector from the **DSV-1200** to the **J2012** on the CNTL UNIT.
- ❒ Replace the transceiver cover, ensuring no wires are pinched, then replace the two screws.
- ❒ Replace the rear panel and its five screws.
- ❒ Installation is now complete.



TOP View

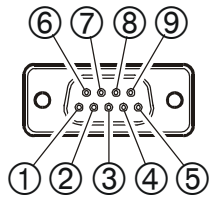
Operation

CW Operation

- ❒ Program the operating frequency and CW delay time which you wish to operating on CW mode via the CE36 Channel Editor.
- ❒ Connect the CW key to the pin 3 (Signal) and pin 6 (GND) of the **DSV-1200** (D-SUB 9-pin) Jack on the rear panel.

DATA (AFSK) Operation

- ❒ Program the operating frequency which you wish to operating on DATA mode via the CE42 Channel Editor.
- ❒ Connect the AFSK modem to the follwing pins of the **DSV-1200** (D-SUB 9-pin) Jack on the rear panel.
  - Pin 4: PTT
  - Pin 6: GND
  - Pin 8: DATA IN (50 ~ 100 mV @ 10 kΩ)
  - Pin 9: DATA OUT (approx. 200 mV @ 1 kΩ)

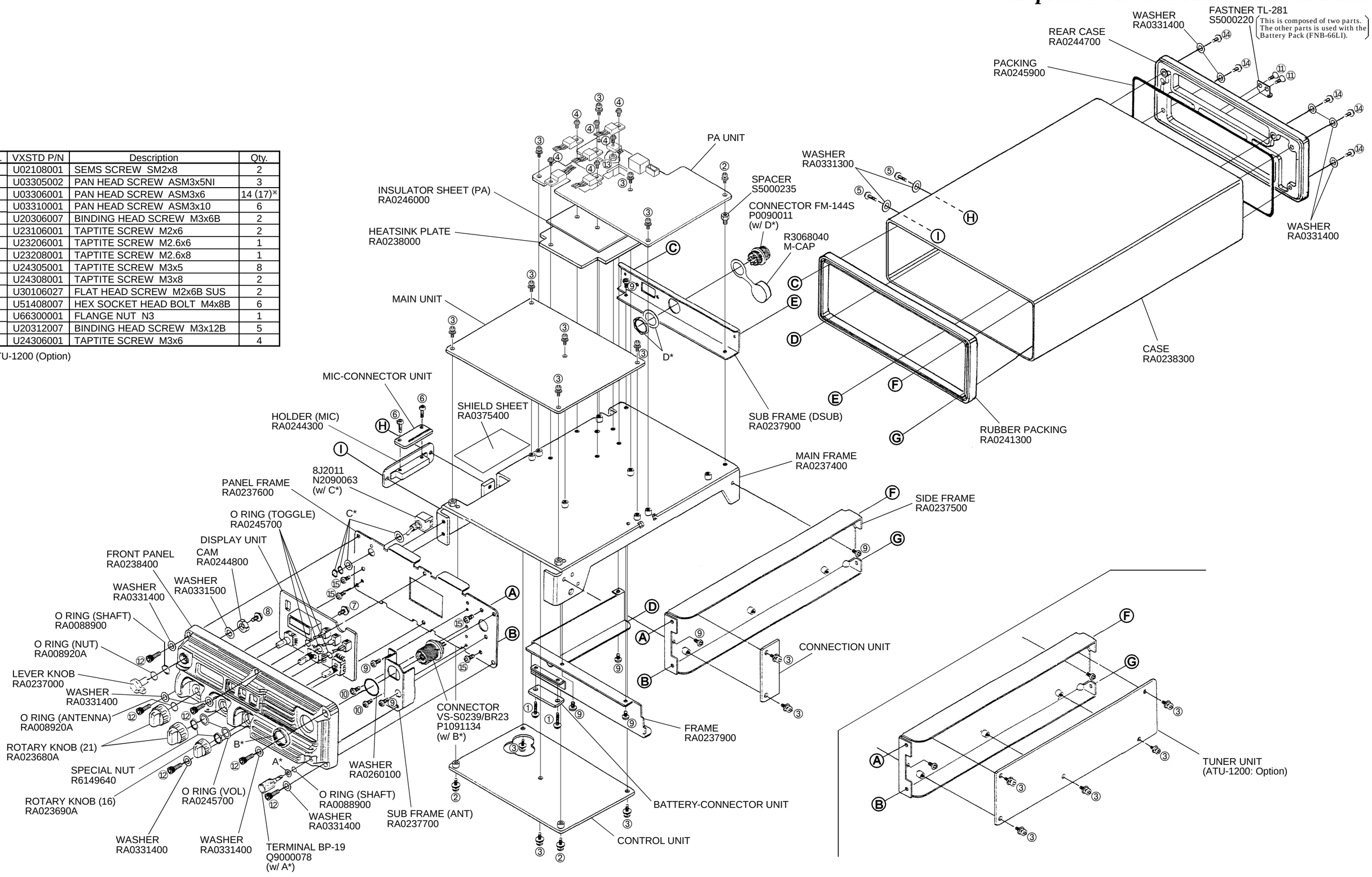


DSV-1200 Jack Pinout
(Viewed from Rear Panel)

Exploded Views & Miscellanuous Parts

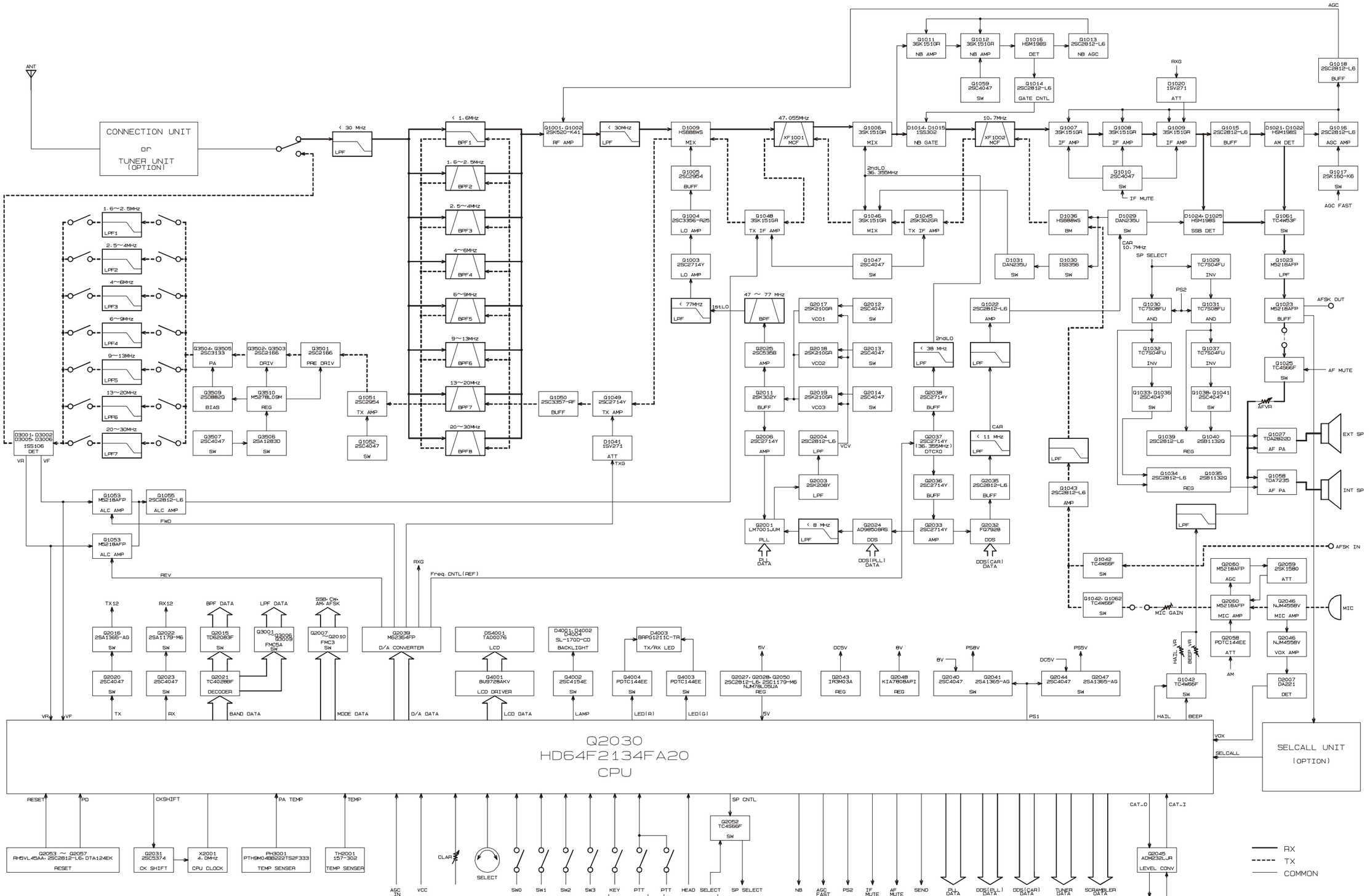
Ref.	VXSTD P/N	Description	Qty.
①	U02108001	SEMS SCREW SM2x8	2
②	U03305002	PAN HEAD SCREW ASM3x5NI	3
③	U03306001	PAN HEAD SCREW ASM3x6	14 (17)※
④	U03310001	PAN HEAD SCREW ASM3x10	6
⑤	U20306007	BINDING HEAD SCREW M3x6B	2
⑥	U23106001	TAPTITE SCREW M2x6	2
⑦	U23206001	TAPTITE SCREW M2.6x6	1
⑧	U23208001	TAPTITE SCREW M2.6x8	1
⑨	U24305001	TAPTITE SCREW M3x5	8
⑩	U24308001	TAPTITE SCREW M3x8	2
⑪	U30106027	FLAT HEAD SCREW M2x6B SUS	2
⑫	U51408007	HEX SOCKET HEAD BOLT M4x8B	6
⑬	U66300001	FLANGE NUT N3	1
⑭	U20312007	BINDING HEAD SCREW M3x12B	5
⑮	U24306001	TAPTITE SCREW M3x6	4

※ ATU-1200 (Option)

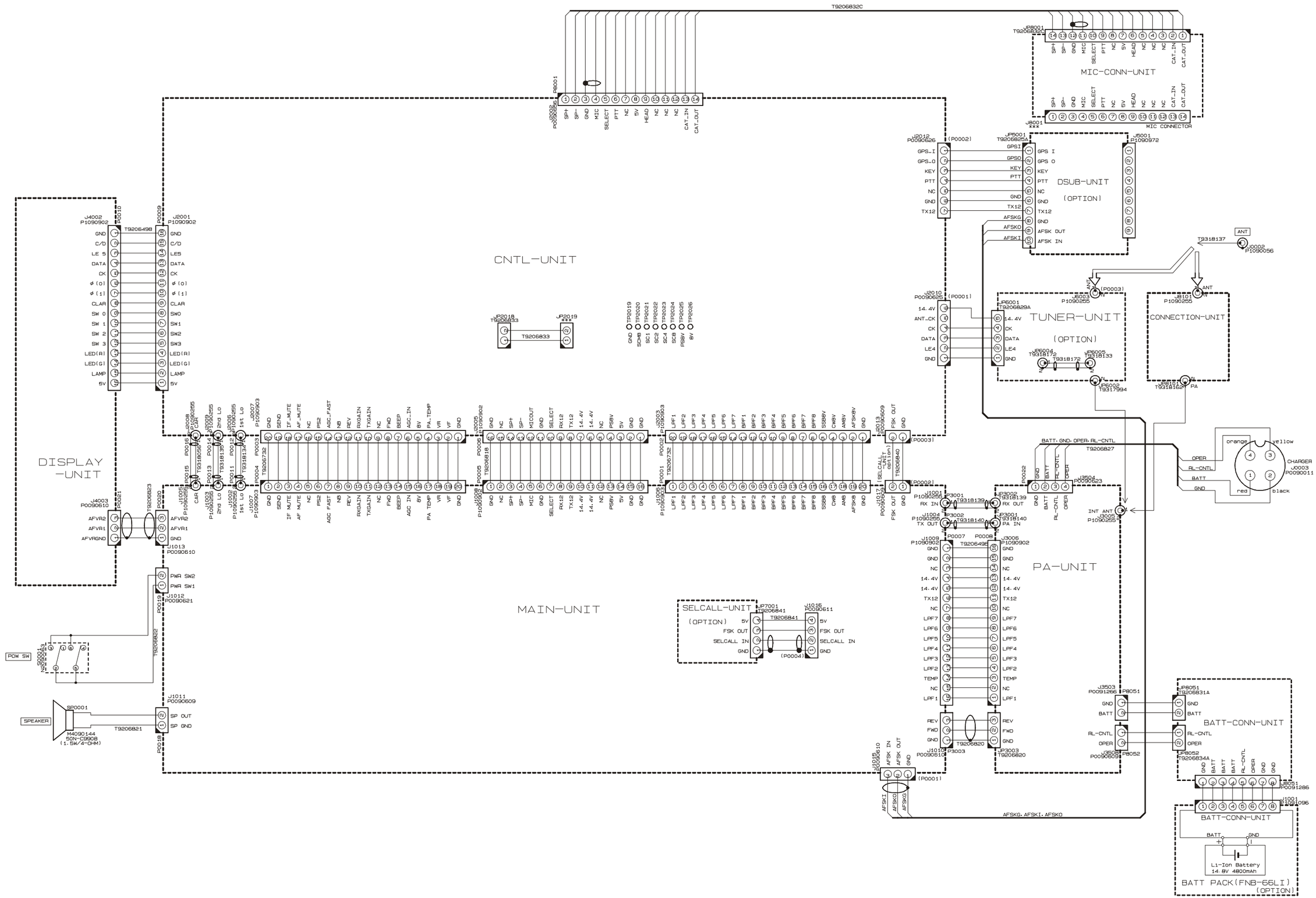


Note

Block Diagram



Interconnection Diagram



Receive Signal Path

Incoming RF signal from the ANT jack is delivered to J3005 on the PA Unit, and passes through the TX/RX relay RL3013 to the low-pass filter which consists of the coils L3016 & L3017 and capacitors C3050, C3051, & C3052 which cut-off frequency is 30 MHz.

The RF signal is then applied to J1001 on the MAIN Unit, and passed through the limitter circuit consist of **D1001**, **D1002**, **D1003**, and **D1004** (all **1SS244**) to prevent the distortion from the high RF input and one of eight band-pass filters which strip away unwanted signals to the RF amplifier **Q1001** and **Q1002** (both **2SK520-K41**).

The amplified RF signal is applied to the double balanced mixer **D1009** (**HSB88WS**) where the RF signal is mixed with 1st local signal delivered from buffer **Q1005** (**2SC2954**), resulting in a 47.055 MHz 1st IF signal.

The 47.055 MHz 1st IF signal is fed through the monolithic crystal filter **XF1001** (**47M15AU**) which strip away unwanted mixer products, and then the 1st IF signal is applied to the 2nd mixer **Q1006** (**3SK151GR**), where it is mixed with the 36.355 MHz 2nd local signal delivered from buffer amplifier **Q2038** (**2SC2714Y**) on the Control Unit, resulting in a 10.7 MHz 2nd IF signal.

The 10.7 MHz 2nd IF signal is fed through the Noise Blanker Gate **D1014** & **D1015** (both **1SS302**) and 2nd IF filter **XF1002** (**10M2.4D**) to the 2nd IF amplifier **Q1007**, **Q1008**, & **Q1009** (all **3SK151GR**).

A portion of the 2nd IF signal is amplified by **Q1011** & **Q1012** (both **3SK151GR**), and then detected (with twofold voltage amplitude) by diode **D1016** (**HSM198S**). This detected output controls the gain of above-mentioned FET by an average AGC voltage responsible for AGC amplifier **Q1013** (**2SC2812**). Also, noise pulse contained in the detected output is amplified by the **Q1014** (**2SC2812**) to be utilized for controlling Noise Blanker Gate **D1014** & **D1015**.

In SSB, CW and FSK modes, the amplified 2nd IF signal from **Q1009** is applied to the product detector diode **D1024** & **D1025** (both **HSM198S**).

In AM mode, the amplified 2nd IF signal from **Q1009** is fed through the buffer amplifier **Q1015** (**2SC2812**) and AM detector diodes **D1021** & **D1022** (both **HSM198S**).

The audio signal from the selected detector is amplified by AF preamplifier **Q1023** (**M5218AFP**). The audio signal is then fed through the AF mute gate **Q1025** (**TC4S66F**) and front panel AF potentiometer **VR4001**, then back to audio amplifier **Q1027** (**TDA2822D**) and **Q1058** (**TDA7235**).

A portion of the output of AM detector diodes **D1021** & **D1022** is amplified by AGC amplifier **Q1016** (**2SC2812**). The amplified DC voltage is fed through the buffer amplifier **Q1018** (**2SC2812**) to the RF amplifier **Q1002** and also the amplified DC voltage is fed to the 2nd gates of the IF amplifiers **Q1007**, **Q1008**, & **Q1009**, to reduce their gain when strong signals are present in the receiver passband.

When pulse type noise is received, a sample of the 2nd IF signal from **Q1006** is amplified by **Q1011** & **Q1012** (both **3SK151GR**) before application to pulse detector **D1016** (**HSM198S**). The resulting DC pulse switches noise blanker gate controller **Q1014** (**2SC2812**), which interrupts the 2nd IF signal at noise blanker gate **D1014** & **D1015** during the length of the noise pulse.

The DC voltage from the pulse detector is also amplified by **Q1013** (**2SC2812**) and fed back to 2nd gates of the AGC amplifier **Q1011** & **Q1012** as noise blanker AGC.

Transmit Signal Path

The speech audio from the microphone is delivered to J8001 on the MIC-CONN Unit, then applied to the J2002 on the CNTL Unit.

The speech audio is amplified by **Q2046** (**NJM4558V**) and **Q2050** (**M5218AFP**), then passed though the MIC gain potentiometer VR1001, and further amplified by **Q1043** (**2SC2812**) before application to balanced modulator **D1036** (**HSB88WS**). The modulator also receives 10.7 MHz carrier signal from buffer amplifier **Q1022** (**2SC2812**).

The modulated signal is delivered to the crystal filter **XF1002** where is stripped unwanted sideband. The resulting 10.7 MHz single sideband signal is buffered by **Q1045** (**2SK302GR**) and then applied to single balanced mixer **Q1046** (**3SK151GR**) which receives 36.355 MHz local signal from buffer amplifier **Q2038** on the CNTL Unit. In AM mode, the single balanced mixer **Q1046** also receivers 10.7 MHz carrier signal from buffer amplifier **Q1022** to resulting the double sideband (AM) signal.

The resulting the 47.055 MHz IF signal is fed through the monolithic crystal filter **XF1001** which strip away unwanted mixer products, and then amplified by **Q1048** (**3SK151GR**). The amplified IF signal is delivered to double balanced mixer **D1009**, where it is mixed with the PLL local signal from the buffer amplifier **Q1005** (**2SC2954**).

The resulting the RF signal at the transmit frequency is fed through the TX amplifier **Q1049** (**2SC2714Y**) and buffer amplifier **Q1050** (**2SC3357**), and then filtered by one of eight bandpass filters to suppress out-of-band mixer products. The RF signal is then amplified by **Q1051** (**2SC2954**) and delivered to PA Unit.

On the PA Unit, the low-level RF signal from the Main Unit is amplified by pre-drive **Q3501** (**2SC2166**), push-pull driver **Q3502/Q3503** (both **2SC2166**), and then push-pull final amplifier **Q3504/Q3505** (both **2SC3133**), which provides approximately 20 watts RF output power.

The RF output from the final amplifier is fed through the one of six low-pass filters, sampling directional coupler T3001, and TX/RX relay RL3014 before delivery to the antenna jack.

The sampling directional coupler senses forward and reverse power output, which is rectified by **D3001/D3005** & **D3002/D3006** (all **1SS106**) respectively for return to the ALC and SWR sensing circuitry on the Main Unit. The DC voltages derived from forward and reverse power are applied in combination to

op-amp **Q1053** (**M5218AFP**), the output which is buffered by **Q1055** (**2SC2812**), then fed back to the 2nd gate of the 47.055 MHz IF amplifier **Q1048**, so that transmitter IF gain is regulated by relative power output, thus preventing overdrive or transmission into an excessive impedance mismatch at the antenna.

PLL Circuit

The PLL local signal for the receiver 1st local and the transmitter final local is generated by one of three VCOs: **Q2017**, **Q2018**, & **Q2019** (all **2SK210GR**) in conjunction with varactor diodes **D2008**, **D2009**, & **D2010** (all **HVU359**) on the CNTL Unit. The oscillating frequency is determined primarily by the level of DC voltage applied to the varactor diodes. The VCO output is buffered by **Q2011** (**2SK302Y**), amplified by **Q2025** (**2SC535B**) and bandpass filtered by capacitor C2088, C2091, C2093, C2095, C2096, & C2099 and coils L2012, L2013, L2015, & L2016. The filtered PLL local signal is applied to the J1002 on the Main Unit, then fed through the buffer amplifiers **Q1003** (**2SC2714Y**), **Q1004** (**2SC3356**), and **Q1005** (**2SC2954**) to the TX final mixer/RX 1st mixer **D1009**.

A portion of the output of buffer amplifier **Q2011** is further amplified by **Q2006** (**2SC2714Y**) and delivered to the PLL subsystem IC **Q2001** (**LM7001JUM**), which contains a reference divider, serial-to-parallel data latch, programmable divider, phase comparator and a swallow counter. The sample VCO signal is divided by the programmable divider section of the **Q2001**. Meanwhile, the 36.355 MHz crystal reference oscillator X2002 and **Q2037** (**2SC2714Y**) amplified by **Q2036** & **Q2033** (both **2SC2714Y**) and is divided by the DDS IC **Q2024** (**AD9850BRS**) in accordance with the PLL dividing data from the main CPU **Q2030** (**HD64F2134FA20**), then applied to the low-pass filter which consist of capacitors C2034, C2036, C2037, C2038, C2041, C2046, C2047, C2051, & C2053 and coils L2002, L2003, L2004, & L2006. The divided and filtered reference signal is applied to the reference divider section of the PLL subsystem IC **Q2001**, where divides it by 72 to produce the loop reference.

The divided signal from the programmable divider (derived from the VCO) and that derived from the reference oscillator are applied to the phase detector section of the PLL subsystem IC **Q2001**, which produces a pulsed output with pulse duration depending on the phase difference between the input signals. This pulse train is low-pass filtered by **Q2003** (**2SK208Y**) & **Q2004** (**2SC2812**), then fed back to the VCO varactor diodes **D2008**, **D2009**, & **D2010**.

Changes in the DC voltage applied to the varactor diodes **D2008**, **D2009**, and **D2010** affect the reactance in the tank circuit VCO **Q2017**, **Q2018**, and **Q2019**, changing the oscillating frequency according to the phase difference between the signals derived from the VCO and the crystal reference oscillator. The VCO is thus phase-locked to the reference frequency standard.

A portion of the output of reference signal from **Q2037** is buffered by **Q2038** (**2SC2714Y**), then applied to the low-pass filter which consist of capacitors C2155 ~ C2159 and coils L2024 & L2025. The filtered reference signal delivered to J1003 on the Main Unit, then applied to the 2nd gate of the TX 1st mixer Q1046 and 2nd gate of the RX 2nd mixer **Q1006**.

A portion of the output of reference signal from **Q2033** is applied to further DDS IC **Q2032** (**FQ7928**) where the reference signal is devided to 10.7 MHz carrier signal accordance with the PLL dividing data from the main CPU **Q2030**, then applied to the buffer amplifier **Q2035** (**2SC2812**). The amplifed carrier signal is fed through the low-pass filter consist of capacitors C2117, C2119, & C2122 ~ C2126 and coils L2020 ~ L2022 to J1005 on the Main Unit, then fed through the carrier amplifier **Q1022** (**2SC2812**) to the detector diode **D1024** & **D1025** and balanced modulator **D1036**.

Control Circuit

Major frequency control functions such as memory selecting, display, and PLL divider control are performed by main CPU **Q2030** (**HD64F2132RF**) on the CNTL Unit, at the command of the user via the tuning knob and function switches on the front panel.

The programmable divider data for the PLL from main CPU **Q2030** is applied directly to DDS IC **Q2024** (**AD9850BRS**) & **Q2032** (**FQ7928**) and PLL subsystem IC **Q2001** (**LM7001JUM**).

The MODE selection data from the main CPU **Q2030** is level shifted by **Q2007** ~ **Q2010** (all **FMC3**) to control the various circuit required for the selected mode.

The BAND selection binary data from the main CPU **Q2030** is BCD-to Decimal decoded by **Q2021** (**TC4028BF**). The resulting decimal outputs are level shifted by **Q2015** (**TD62083F**) to select the active band-pass filter on the Main Unit required for the operating frequency. Also, the decimal outputs from **Q2021** are delivered to PA Unit, then level shifted by **Q3001** ~ **Q3006** and **Q3009** (all **FMC5A**) to select the active low-pass filter required for the operating frequency.

TX/RX Control

When press the PTT switch, pin 22 of main CPU **Q2030** (**HD64F2134FA20**) goes low. This signal disable the receiver 12 V bus at **Q2022** (**2SA1179**). At the same time, activate the transmit 12 V bus at **Q2016** (**2SA1365**).

Power Supply & Regulation

The +5 V bus for the main CPU is derived from the 13.5 V bus via regulator **Q2050** (**NJM78L05UA**) on the CNTL Unit.

The +5 V bus is derived the from the 13.5 V bus by switching regulator **Q2043** (**IR3M03A**) and rectified **D2016** (**11EQS04**) and L2028. A portion of the +5 V is switched by **Q2044** (**2SC4047**) & **Q2047** (**2SA1365**) on the CNTL Unit, under control of the main CPU **Q2030** via pin 58.

The +8 V bus is derived from the 13.5 V bus via regulator **Q2048** (**KIA7808API**) on the CNTL Unit.

The VX-1210 is carefully aligned at the factory for the specified performance across the entire operating frequency range. Realignment should therefore not be necessary except in the event of a component failure. All component replacement and service should be performed only by an authorized Vertex Standard representative, or the warranty policy may be void.

The following procedures cover the sometimes critical and tedious adjustments that are not normally required once the transceiver has left the factory. However, if damage occurs and some parts subsequently are placed, realignment may be required. If a sudden problem occurs during normal operation, it is likely due to component failure; realignment should not be done until after the faulty component has been replaced.

We recommend that servicing be performed only by authorized Vertex Standard service technicians who are experienced with the circuitry and fully equipped for repair and alignment. Therefore, if a fault is suspected, contact the dealer from whom the repeater was purchased for instructions regarding repair. Authorized Vertex Standard service technicians realign all circuits and make complete performance checks to ensure compliance with factory specifications after replacing any faulty components.

Those who do undertake any of the following alignments are cautioned to proceed at their own risk. Problems caused by unauthorized attempts at realignment are not covered by the warranty policy. Also, Vertex Standard reserves the right to change circuits and alignment procedures in the interest of improved performance, without notifying owners.

Under no circumstances should any alignment be attempted unless the normal function and operation of the transceiver are clearly understood, the cause of the malfunction has been clearly pinpointed and any faulty components replaced, and realignment determined to be absolutely necessary.

The following test equipment (and thorough familiarity with its correct use) is necessary for complete realignment. Correction of problems caused by misalignment resulting from use of improper test equipment is not covered under the warranty policy. While most steps do not require all of the equipment listed, the interactions of some adjustments may require that more complex adjustments be performed afterwards.

Do not attempt to perform only a single step unless it is clearly isolated electrically from all other steps. Have all test equipment ready before beginning, and follow all of the steps in a section in the order presented.

Required Test Equipment

- ❒ RF Signal Generator with calibrated output level at 30 MHz
- ❒ Spectrum Analyzer
- ❒ In-line Wattmeter with 5 % accuracy at 30 MHz
- ❒ 50 Ω RF Dummy Load with power rating 50W at 30MHz
- ❒ Frequency Counter with 0.02 ppm accuracy at 40 MHz
- ❒ AF Signal Generator
- ❒ AC Voltmeter
- ❒ DC Voltmeter: High input impedance
- ❒ DC Ammeter
- ❒ HF Sampling Coupler
- ❒ IBM PC / compatible Computer with MS-DOS or later operating system
- ❒ Vertex Standard **SVC-1200** Service Set & **CE42** Channel/ Alignment Diskette

Alignment Preparation & Precautions

A 50 Ω RF Dummy Load and in-line wattmeter must be connected to the ANT jack in all procedures that call for transmission, except where specified otherwise. Correct alignment is not possible with an antenna.

After completing one step, read the following step to determine whether the same test equipment will be required. If not, remove the test equipment (except dummy load and wattmeter, in connected) before proceeding.

Correct alignment requires that the ambient temperature be the same as that of the transceiver and test equipment, and that this temperature be held constant between 68 °F and 86 °F (20 °C ~ 30 °C). When the transceiver is brought into the shop from hot or cold air, it should be allowed time to come to room temperature before alignment.

Whenever possible, alignments should be made with oscillator shields and circuit boards firmly affixed in place. Also, the test equipment must be thoroughly warmed up before beginning.

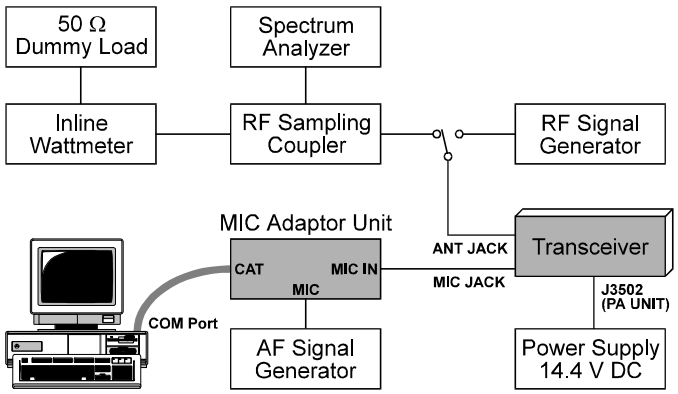
Note: Signal levels in dB referred to in the alignment procedure are based on 0dBµ = 0.5µV (Closed Circuit).

Alignment

Set up the test equipment as shown below, and apply 14.4V DC power to the transceiver.

The VX-1210 must be programmed for use in the intended system before alignment is attempted. The frequency and other parameters are loaded from the file during the alignment process.

In order to facilitate alignment over the complete switching range of the equipment it is recommended that the channel data first be uploaded and then stored to disk. Alignment Channel data should then be downloaded. The original data can be replaced at the end of the alignment process.



VX-1210 Alignment Setup

PLL Alignment

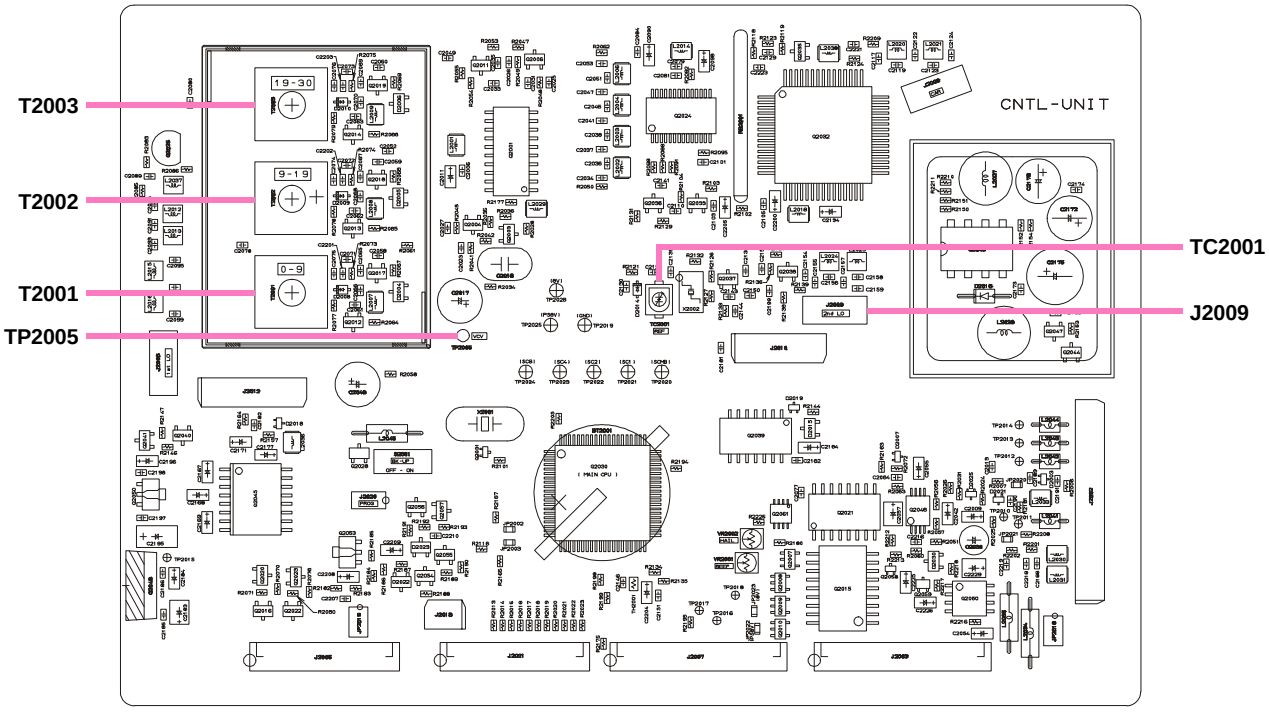
PLL Reference Frequency Alignment

- ❒ Remove the coaxial plug from **J2009** on the CNTL Unit, and connect the Frequency Counter to **J2009**.
- ❒ Adjust **TC2001** on the CNTL Unit for 36.355 MHz ±10 Hz on the frequency Counter.

VCO VCV Alignment

- ❒ Connect the DC voltmeter to **TP2005** on the CNTL Unit, and referring Table below, turn the transceiver to each channel listed. Then adjust the listed component for the required voltage or confirm that the correct voltage is present.

Tune to	Adjust or Confirm	For
"**VCO 1 U**" channel (8.99999 MHz, USB)	**T2001**	6.0 V ± 0.1 V
"**VCO 1 L**" channel (0.50000 MHz, USB)	Confirm	1.3 ~ 2.3 V
"**VCO 2 U**" channel (18.9999 MHz, USB)	**T2002**	6.0 V ± 0.1 V
"**VCO 2 L**" channel (9.00000 MHz, USB)	Confirm	1.0 ~ 2.0 V
"**VCO 3 U**" channel (30.00000 MHz, USB)	**T2003**	6.0 V ± 0.1 V
"**VCO 3 L**" channel (19.00000 MHz, USB)	Confirm	1.0 ~ 2.0 V



CNTL Unit Alignment Points

Receiver Alignment

RX IF Coils Alignment

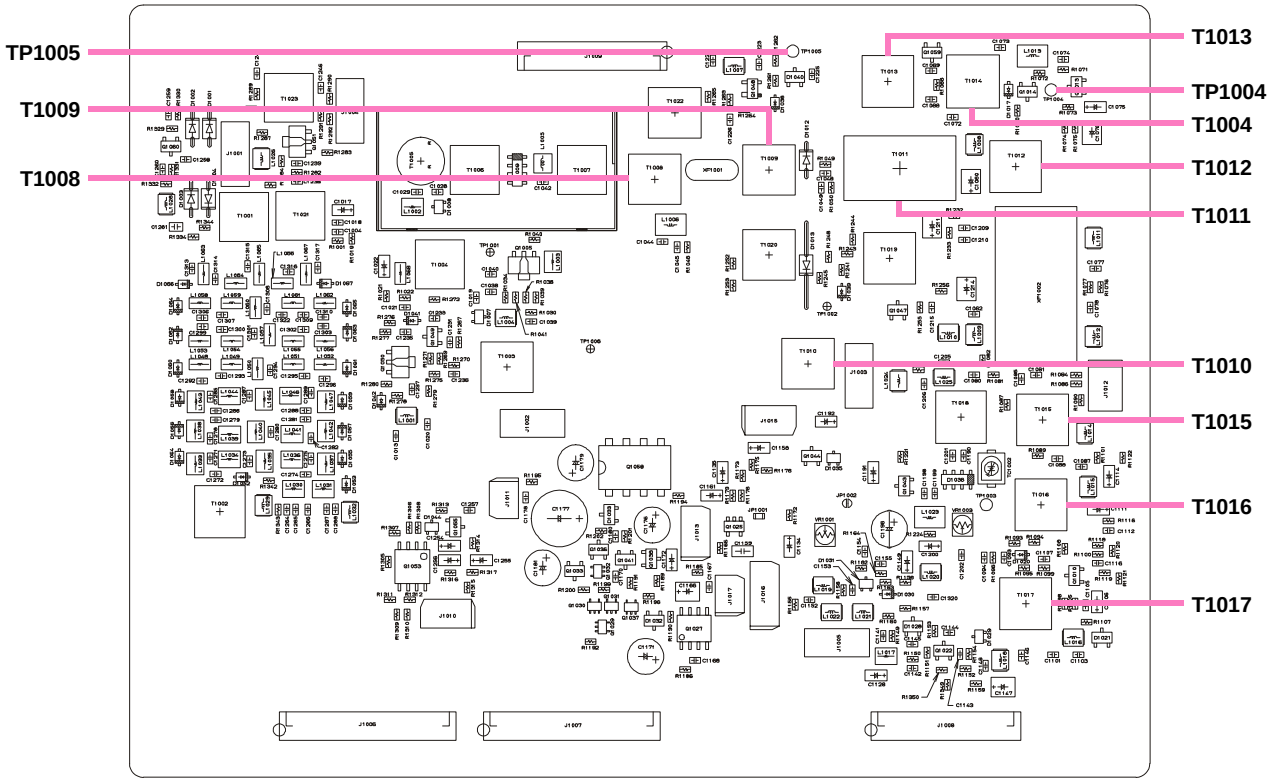
- ❒ Connect the RF Signal Generator to ANT jack, and connect the DC voltmeter to **TP1005** on the MAIN Unit.
- ❒ Select the "**RX IF**" channel (10.15000 MHz, CW).
- ❒ Inject a signal from the RF Signal Generator to 10.15100 MHz, then adjust the RF Signal Generator output level so that the DC voltmeter reading is approximately 3 V.
- ❒ Adjust **T1008**, **T1009**, **T1010**, **T1011**, **T1012**, **T1015**, **T1016**, and **T1017** in succession several times for minimum indication on the DC Voltmeter.

RX Gain Alignment

- ❒ Connect the RF Signal Generator to ANT jack, and connect the DC voltmeter to **TP1005** on the MAIN Unit.
- ❒ Select the "**RX IF**" channel (10.15000 MHz, CW), and recall the [**RX GAIN**] parameter on the computer.
- ❒ Inject a signal from the RF Signal Generator to 10.15100 MHz, then adjust the RF Signal Generator output level for 6 dBμ.
- ❒ Press the [**F10**] key to activate the **SPOT-ADJ** mode, then press the [**SHIFT**] + [▲]/[▼] keys so that the difference of the DC Voltmeter reading is 0.1 V ±0.05 V when the RF Signal Generator on and off.
- ❒ Press the [**F2**] key to save the alignment value to the transceiver.

Noise Blanker Alignment

- ❒ Connect the RF Signal Generator to ANT jack, and connect the DC voltmeter to **TP1004** on the MAIN Unit.
- ❒ Select the "**RX IF**" channel (10.15000 MHz, CW).
- ❒ Inject a signal from the RF Signal Generator to 10.15100 MHz, then adjust the RF Signal Generator output level so that the DC voltmeter reading is approximately 3 V.
- ❒ Adjust **T1013** and **T1014** for minimum indication on the DC Voltmeter.



MAIN Unit Alignment Points [1]

Alignment

Transmitter Alignment

MIC Gain Alignment

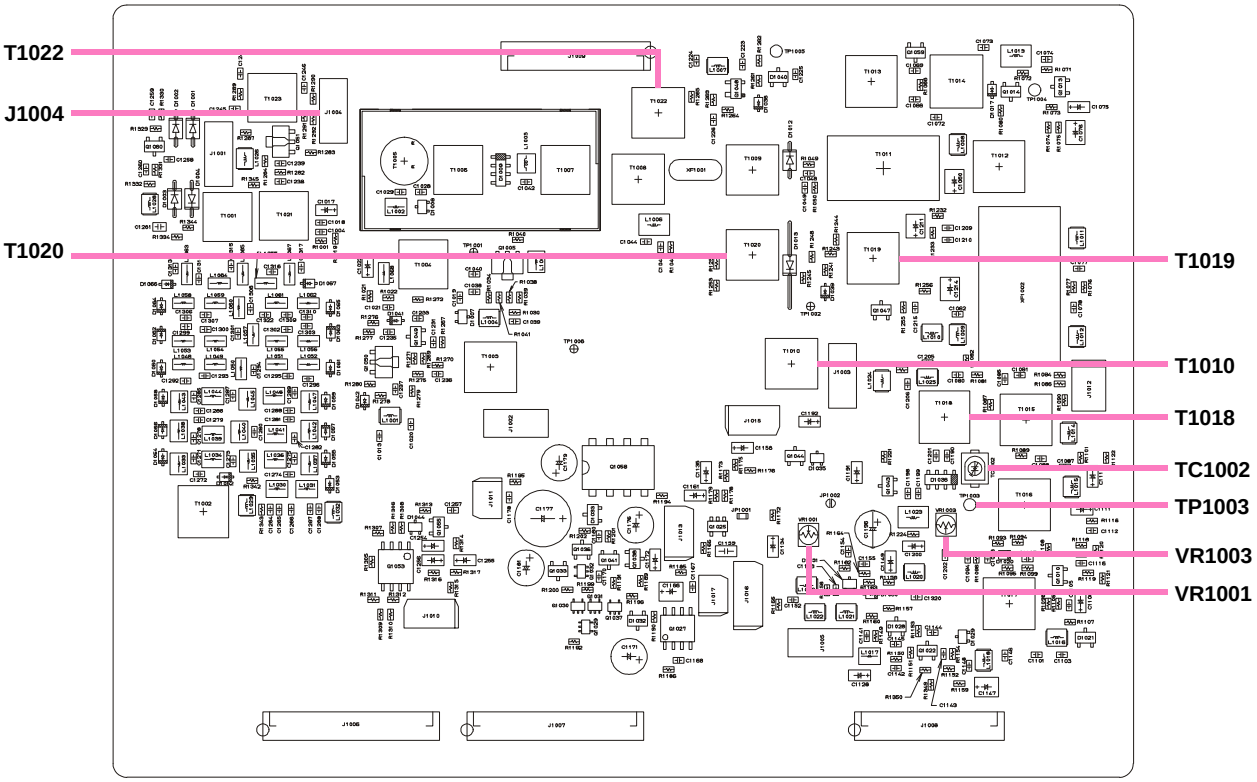
- ❒ Connect the AF millivoltmeter to **TP1003** on the MAIN Unit.
- ❒ Connect the AF Generator to the **MIC IN** jack on the MIC Adapter Unit.
- ❒ Select the "**TX IF**" channel (10.25000 MHz, USB).
- ❒ Inject a signal from the AF Generator to 1500 Hz, then adjust the AF Generator output level for 8 mV.
- ❒ Key the transmitter, adjust **VR1001** on the MAIN Unit for 30 mV ± 3 mV on the AF millivoltmeter.

TX IF Coils Alignment

- ❒ Remove the coaxial plug from **J1004** on the MAIN Unit, then connect the RF millivoltmeter and 50 Ω resistor to **J1004**.
- ❒ Connect the AF Generator to the **MIC IN** jack on the MIC Adapter Unit.
- ❒ Select the "**TX IF**" channel (10.25000 MHz, USB).
- ❒ Inject a signal from the AF Generator to 1500 Hz, then adjust the AF Generator output level so that the RF millivoltmeter reading is approximately 0 dBm.
- ❒ Key the transmitter, adjust **T1010**, **T1018**, **T1019**, **T1020**, and **T1022** on the MAIN Unit in succession several times for maximum indication on the RF millivoltmeter.
- ❒ Disconnect the RF millivoltmeter and 50 Ω resistor, then replace the plug into **J1004**.

Carrier Balance Pre-Alignment

- ❒ Remove the coaxial plug from **J1004** on the MAIN Unit, then connect the RF millivoltmeter and 50 Ω resistor to **J1004**.
- ❒ Select the "**TX IF**" channel (10.25000 MHz, USB).
- ❒ Key the transmitter with no microphone input, adjust **TC1002** and **VR1003** on the MAIN Unit for minimum indication on the RF millivoltmeter.
- ❒ Disconnect the RF millivoltmeter and 50 Ω resistor, then replace the plug into **J1004**.



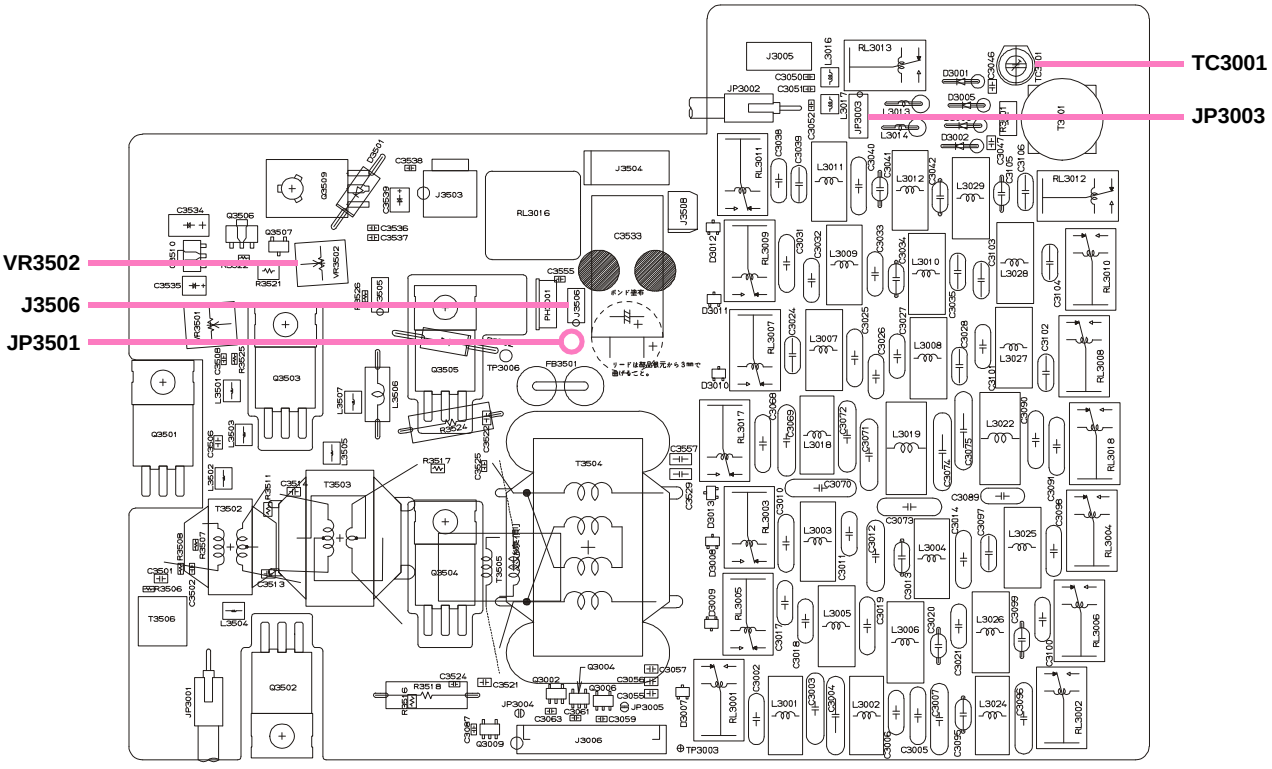
MAIN Unit Alignment Points [1]

Final Section Idling Current Alignment

- ❒ Remove the Solder jumper from **JP3501** on the PA Unit, and connect the DC Ammeter to **J3506** (pin 1: "–" lead, pin 2: "+" lead) on the PA Unit.
- ❒ Select the "**TX IF**" channel (10.25000 MHz, USB).
- ❒ Key the transmitter with no microphone input, adjust **VR3502** on the PA Unit for 100 mA ± 10 mA on the DC Ammeter.
- ❒ Disconnect the DC Ammeter, and connect **JP3501** by solder jumper.

CM Coupler Balance

- ❒ Connect the 50 Ω Dummy Load and Inline Wattmeter to the **ANT** jack, then connect the AF Generator to the **MIC IN** jack on the MIC Adapter Unit, and adjust the AF Generator to 1500 Hz.
- ❒ Connect the DC voltmeter to pin 3 of **JP3003** ("+" lead, "–" lead: GND) on the CNTL Unit.
- ❒ Select the "**CM BAL**" channel (29.9000 MHz, USB).
- ❒ Turn the **HI/LOW** (Transmitter Power) Switch to the "upper" position.
- ❒ Key the transmitter, then adjust the AF Generator output level so that the Inline Wattmeter reading is approximately 20 Watts.
- ❒ Now, adjust **TC3001** for minimum indication on the DC voltmeter.



PA Unit Alignment Points

Alignment

TX Gain Alignment 1 (SSB Hi Power)

- ❒ Connect the 50 Ω Dummy Load and Inline Wattmeter to the ANT jack, then connect the AF Generator to the **MIC IN** jack on the MIC Adapter Unit, and adjust the AF Generator to 1500 Hz, 8 mV.
- ❒ Referring Table below, turn the transceiver to each channel listed, and recall the computer to each parameter listed by pressing the [**F7**] key. Press the [**F10**] key to activate the **SPOT-ADJ** mode, then key the transmitter and press the [**SHIFT**] + [▲]/[▼] keys for the required output.
- ❒ Press the [**F2**] key to save the alignment value to the transceiver.

Tune to	Recall Parameter	For
"**TXG S 1H**" channel (3.50000 MHz, USB)	SSB Tx Ga Hi (00-04)	20 W
"**TXG S 2H**" channel (5.00000 MHz, USB)	SSB Tx Ga Hi (04-06)	20 W
"**TXG S 3H**" channel (7.50000 MHz, USB)	SSB Tx Ga Hi (06-09)	20 W
"**TXG S 4H**" channel (11.00000 MHz, USB)	SSB Tx Ga Hi (09-13)	20 W
"**TXG S 5H**" channel (16.50000 MHz, USB)	SSB Tx Ga Hi (13-20)	20 W
"**TXG S 6H**" channel (25.00000 MHz, USB)	SSB Tx Ga Hi (20-30)	20 W

TX Gain Alignment 2 (SSB Low Power)

- ❒ Connect the 50 Ω Dummy Load and Inline Wattmeter to the ANT jack, then connect the AF Generator to the **MIC IN** jack on the MIC Adapter Unit, and adjust the AF Generator to 1500 Hz, 8 mV.
- ❒ Referring Table below, turn the transceiver to each channel listed, and recall the computer to each parameter listed by pressing the [**F7**] key. Press the [**F10**] key to activate the **SPOT-ADJ** mode, then key the transmitter and enter the alignment values using the numeric keys for the required output.
- ❒ Press the [**F2**] key to save the alignment value to the transceiver.

Tune to	Recall Parameter	For
"**TXG S 1L**" channel (3.50000 MHz, USB)	SSB Tx Ga Lo (00-04)	5 W
"**TXG S 2L**" channel (5.00000 MHz, USB)	SSB Tx Ga Lo (04-06)	5 W
"**TXG S 3L**" channel (7.50000 MHz, USB)	SSB Tx Ga Lo (06-09)	5 W
"**TXG S 4L**" channel (11.00000 MHz, USB)	SSB Tx Ga Lo (09-13)	5 W
"**TXG S 5L**" channel (16.50000 MHz, USB)	SSB Tx Ga Lo (13-20)	5 W
"**TXG S 6L**" channel (25.00000 MHz, USB)	SSB Tx Ga Lo (20-30)	5 W

TX Gain Alignment 1 (AM Hi Power)

- ❒ Connect the 50 Ω Dummy Load and Inline Wattmeter to the ANT jack.
- ❒ Referring Table below, turn the transceiver to each channel listed, and recall the computer to each parameter listed by pressing the [**F7**] key. Press the [**F10**] key to activate the **SPOT-ADJ** mode, then key the transmitter with no microphone input and press the [**SHIFT**] + [▲]/[▼] keys for the required output.
- ❒ Press the [**F2**] key to save the alignment value to the transceiver.

Tune to	Recall Parameter	For
"**TXG A 1H**" channel (3.50000 MHz, AM)	AM Tx Ga Hi (00-04)	20 W
"**TXG A 2H**" channel (5.00000 MHz, AM)	AM Tx Ga Hi (04-06)	20 W
"**TXG A 3H**" channel (7.50000 MHz, AM)	AM Tx Ga Hi (06-09)	20 W
"**TXG A 4H**" channel (11.00000 MHz, AM)	AM Tx Ga Hi (09-13)	20 W
"**TXG A 5H**" channel (16.50000 MHz, AM)	AM Tx Ga Hi (13-20)	20 W
"**TXG S 6H**" channel (25.00000 MHz, AM)	AM Tx Ga Hi (20-30)	20 W

TX Gain Alignment 2 (AM Lo Power)

- ❒ Connect the 50 Ω Dummy Load and Inline Wattmeter to the ANT jack.
- ❒ Referring Table below, turn the transceiver to each channel listed, and recall the computer to each parameter listed by pressing the [**F7**] key. Press the [**F10**] key to activate the **SPOT-ADJ** mode, then key the transmitter with no microphone input and press the [**SHIFT**] + [▲]/[▼] keys for the required output.
- ❒ Press the [**F2**] key to save the alignment value to the transceiver.

Tune to	Recall Parameter	For
"**TXG A 1L**" channel (3.50000 MHz, AM)	AM Tx Ga Lo (00-04)	5 W
"**TXG A 2L**" channel (5.00000 MHz, AM)	AM Tx Ga Lo (04-06)	5 W
"**TXG A 3L**" channel (7.50000 MHz, AM)	AM Tx Ga Lo (06-09)	5 W
"**TXG A 4L**" channel (11.00000 MHz, AM)	AM Tx Ga Lo (09-13)	5 W
"**TXG A 5L**" channel (16.50000 MHz, AM)	AM Tx Ga Lo (13-20)	5 W
"**TXG S 6L**" channel (25.00000 MHz, AM)	AM Tx Ga Lo (20-30)	5 W

Tx Output Power Alignment 1 (SSB/CW Hi Power)

- ❒ Connect the 50 Ω Dummy Load and Inline Wattmeter to the ANT jack.
- ❒ Referring Table below, turn the transceiver to each channel listed, and recall the computer to each parameter listed by pressing the [**F7**] key. Press the [**F10**] key to activate the **SPOT-ADJ** mode, then key the transmitter and press the [**SHIFT**] + [▲]/[▼] keys for the required output.
- ❒ Press the [**F2**] key to save the alignment value to the transceiver.

Tune to	Recall Parameter	For
"**TXP C 1H**" channel (6.50000 MHz, CW)	SSB Po Hi (00-10)	20 W
"**TXP C 2H**" channel (15.00000 MHz, CW)	SSB Po Hi (10-20)	20 W
"**TXP C 3H**" channel (25.00000 MHz, CW)	SSB Po Hi (20-30)	20 W

Tx Output Power Alignment 2 (SSB/CW Low Power)

- ❒ Connect the 50 Ω Dummy Load and Inline Wattmeter to the ANT jack.
- ❒ Referring Table below, turn the transceiver to each channel listed, and recall the computer to each parameter listed by pressing the [**F7**] key. Press the [**F10**] key to activate the **SPOT-ADJ** mode, then key the transmitter and press the [**SHIFT**] + [▲]/[▼] keys for the required output.
- ❒ Press the [**F2**] key to save the alignment value to the transceiver.

Tune to	Recall Parameter	For
"**TXP C 1L**" channel (6.50000 MHz, CW)	SSB Po Lo (00-10)	5 W
"**TXP C 2L**" channel (15.00000 MHz, CW)	SSB Po Lo (10-20)	5 W
"**TXP C 3L**" channel (25.00000 MHz, CW)	SSB Po Lo (20-30)	5 W

Tx Output Power Alignment 3 (AM Hi Power)

- ❒ Connect the 50 Ω Dummy Load and Inline Wattmeter to the ANT jack.
- ❒ Referring Table below, turn the transceiver to each channel listed, and recall the computer to each parameter listed by pressing the [**F7**] key. Press the [**F10**] key to activate the **SPOT-ADJ** mode, then key the transmitter and press the [**SHIFT**] + [▲]/[▼] keys for the required output.
- ❒ Press the [**F2**] key to save the alignment value to the transceiver.

Tune to	Recall Parameter	For
"**TXP A 1H**" channel (6.50000 MHz, AM)	AM Po Hi (00-10)	10 W
"**TXP A 2H**" channel (15.00000 MHz, AM)	AM Po Hi (10-20)	10 W
"**TXP A 3H**" channel (25.00000 MHz, AM)	AM Po Hi (20-30)	10 W

Tx Output Power Alignment 4 (AM Low Power)

- ❒ Connect the 50 Ω Dummy Load and Inline Wattmeter to the ANT jack.
- ❒ Referring Table below, turn the transceiver to each channel listed, and recall the computer to each parameter listed by pressing the [**F7**] key. Press the [**F10**] key to activate the **SPOT-ADJ** mode, then key the transmitter and press the [**SHIFT**] + [▲]/[▼] keys for the required output.
- ❒ Press the [**F2**] key to save the alignment value to the transceiver.

Tune to	Recall Parameter	For
"**TXP A 1L**" channel (6.50000 MHz, AM)	AM Po L0 (00-10)	2.5 W
"**TXP A 2L**" channel (15.00000 MHz, AM)	AM Po Lo (10-20)	2.5 W
"**TXP A 3L**" channel (25.00000 MHz, AM)	AM Po Lo (20-30)	2.5 W

Carrier Balance Alignment

- ❒ With the 50 dB Attenuator (or 50 Ω Dummy Load and Sampling Coupler) and Spectrum Analyzer connected to the ANT jack.
- ❒ Select the "**TX IF**" channel (10.25000 MHz, USB).
- ❒ Key the transmitter with no microphone input, adjust **TC1002** and **VR1003** on the MAIN Unit for minimum indication on the Spectrum Analyzer.

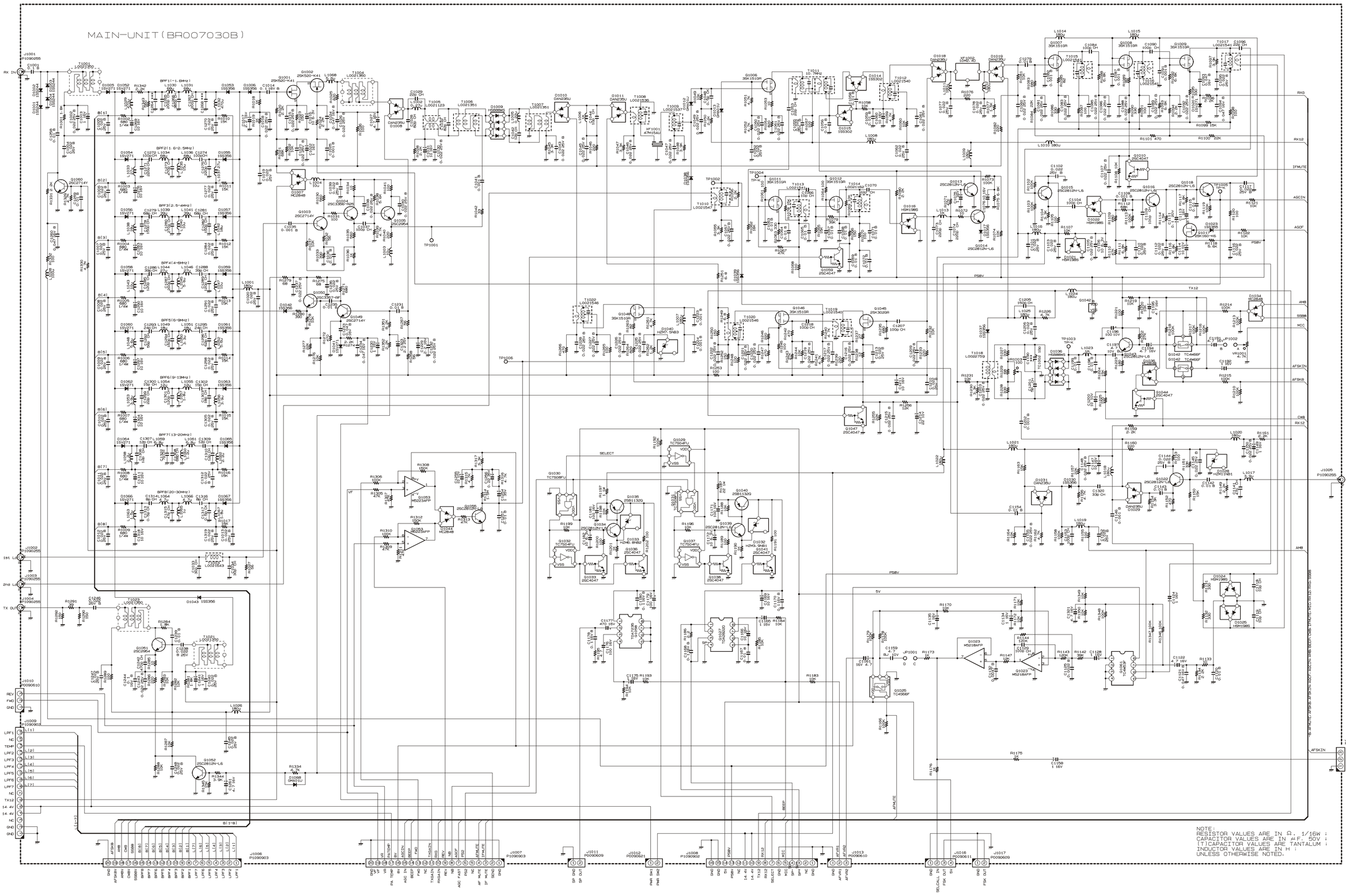
Warning Indicator (Low Voltage) Alignment

- ❒ Reduce the DC power to 13.8 volt.
- ❒ Recall the [**Volt Warning 1**] parameter on the computer.
- ❒ Press the [**F10**] key to activate the **SPOT-ADJ** mode, then press the [**SHIFT**] + [▲]/[▼] keys so that the front panel LED will blink red when the [**F7**] key is pressed.
- ❒ Reduce the DC power to 13.0 volt.
- ❒ Recall the [**Volt Warning 2**] parameter on the computer.
- ❒ Press the [**F10**] key to activate the **SPOT-ADJ** mode, then press the [**SHIFT**] + [▲]/[▼] keys so that the front panel LED will glows red when the [**F7**] key is pressed.

Alignment

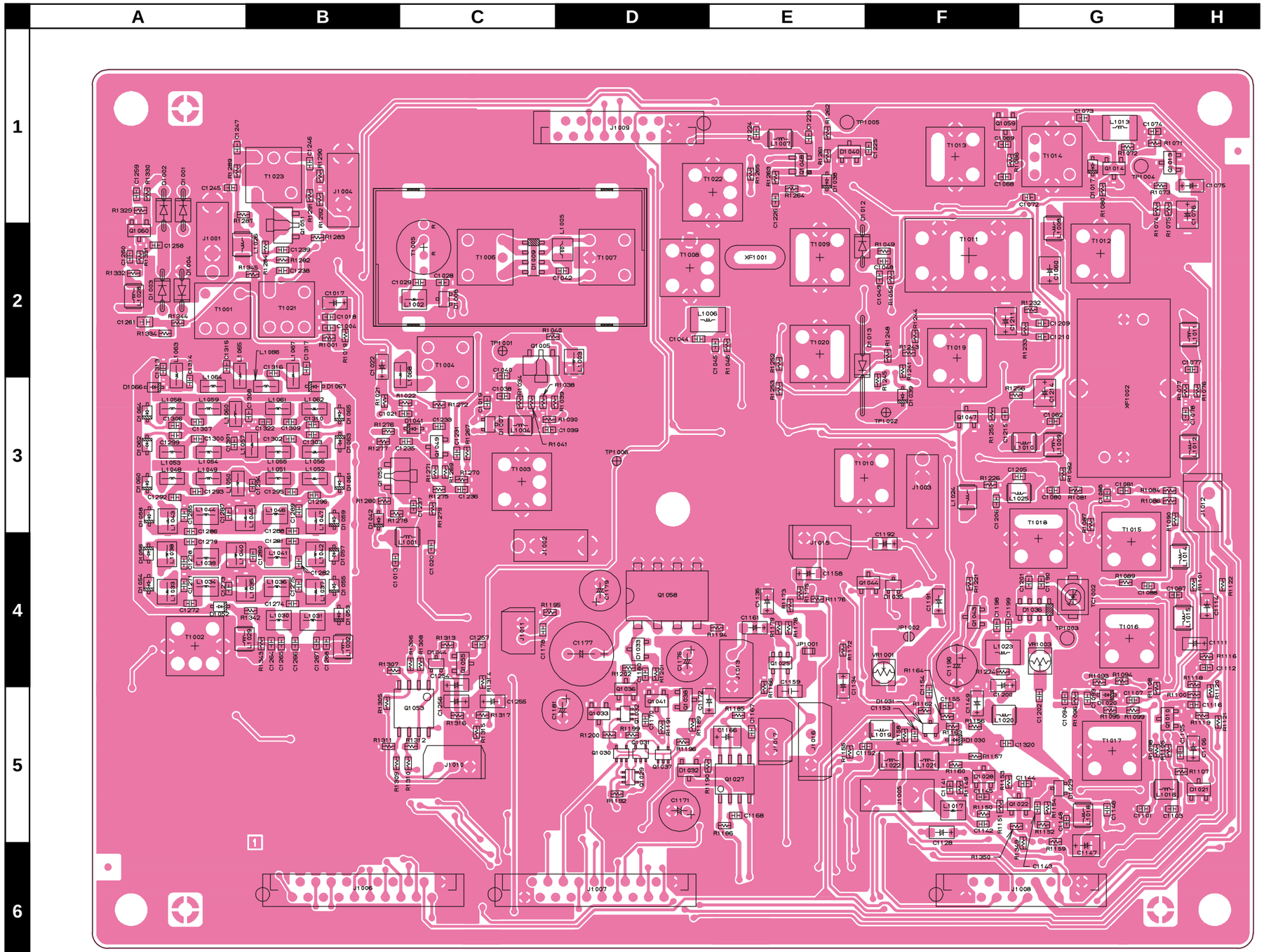
Note

Circuit Diagram

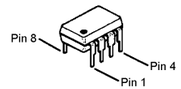


MAIN Unit

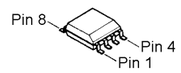
Note



Side A

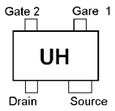


TDA7235
(Q1058)

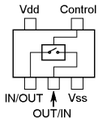


M5223AFP
(Q1053)

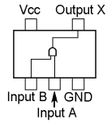
TDA2822D
(Q1027)



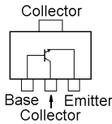
3SK151GR (K6)
(Q1048)



TC4S66F (C9)
(Q1025)

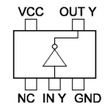


TC7S08FU (E2)
(Q1030, 1031)

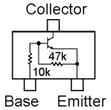


2SC2954 (QK)
(Q1005, 1051)

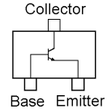
2SC3357 (RK)
(Q1050)



TC7S04FU TE85R (E5)
(Q1029, 1032, 1037)

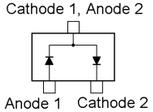


2SC4047 (ZY)
(Q1010, 1033, 1036, 1038, 1041, 1044, 1047, 1059)



2SC2714Y (QY)
(Q1049, 1060)

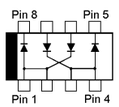
2SC2812L6 (L6)
(Q1013, 1014, 1022, 1043, 1055)



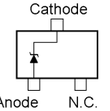
DAN235U (M)
(D1008, 1029, 1031)

HSM198S (C6)
(D1021)

MC2848 (A6)
(D1007, 1035, 1044)



HSB88WSTR (M)
(D1009, 1036)



HZM3.9NB1
(D1032)

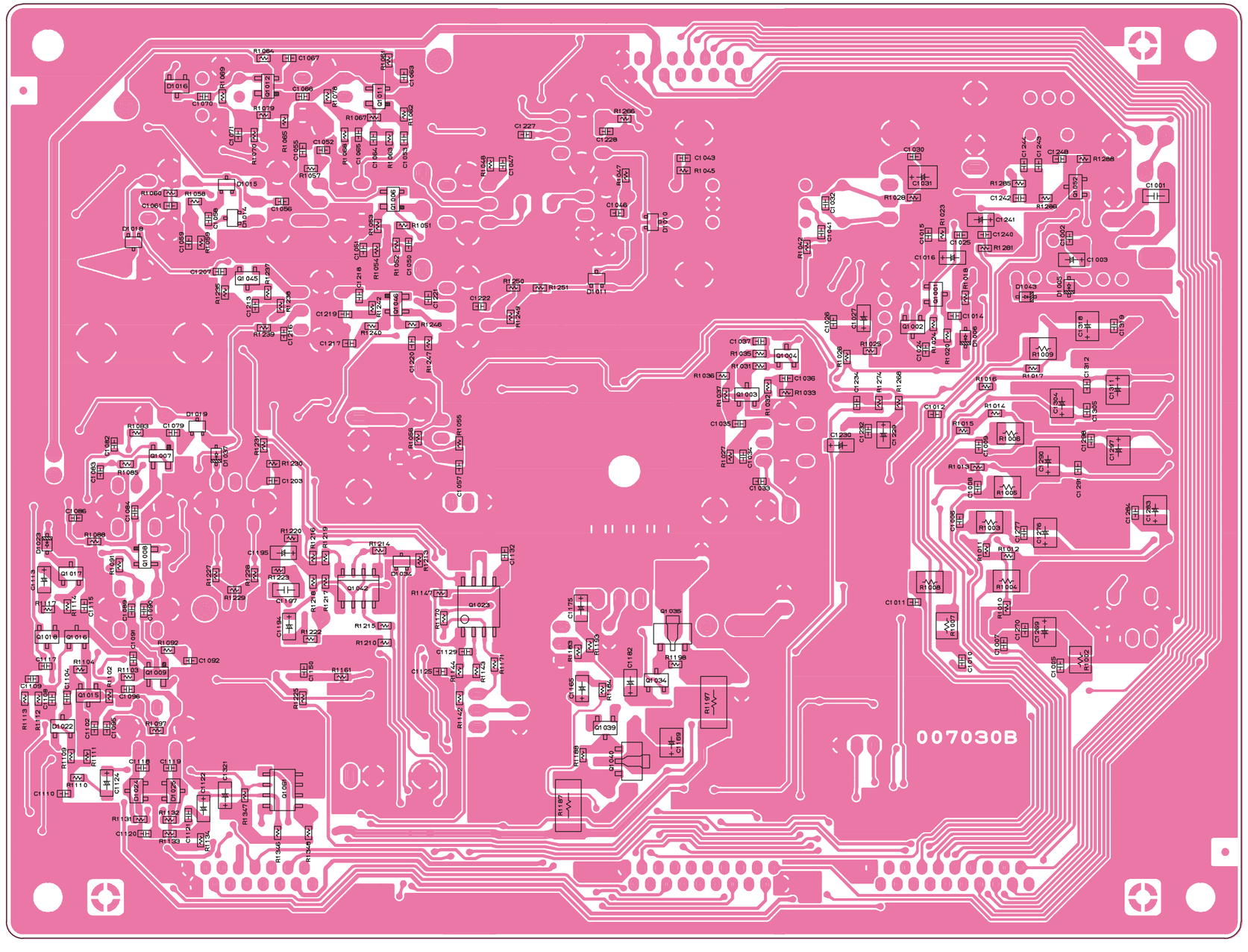
HZM6.8N
(D1033)

HZM7.5N
(D1040)

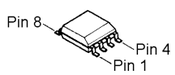
HZM11N
(D1028)

Main Unit

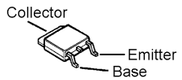
Parts Layout



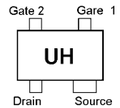
Side B



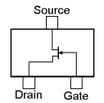
M5218AFP
(Q1023, 1054)
TC4W53F TE12L
(Q1061)
TC4W66F
(Q1042)



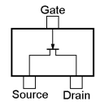
2SB1132 (BA)
(Q1035, 1040)



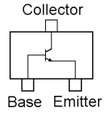
3SK151GR (K6)
(Q1006, 1007,
1008, 1009, 1011,
1012, 1046)



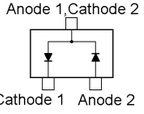
2SK302 (TY)
(Q1045)



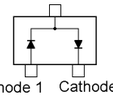
2SK160 (K6)
(Q1017)
2SK520 (K41)
(Q1001, 1002)



2SC2714Y (QY)
(Q1003)
2SC2812L6 (L6)
(Q1015, 1016, 1018,
1034, 1039, 1052)
2SC3356 (R24)
(Q1004)



1SS302 (C3)
(D1014, 1015)



DAN235U (M)
(D1010, 1011, 1018, 1019)
HSM198S (C6)
(D1016, 1022, 1024, 1025)
MC2848 (A6)
(D1034)

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
	PCB with Components					CB1551001				
	Printed Circuit Board					FR007030B		1-		
C 1001	CHIP CAP.	0.1uF	50V	B	GRM42-6B104K50PT	K22171820		1-	B	g2
C 1002	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g2
C 1003	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	B	g2
C 1004	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B2
C 1005	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g5
C 1006	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f4
C 1007	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g4
C 1008	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f3
C 1009	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f3
C 1010	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f4
C 1011	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f4
C 1012	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f3
C 1013	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B4
C 1014	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	f2
C 1015	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f2
C 1016	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	f2
C 1017	CHIP TA.CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015		1-	A	B2
C 1018	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B2
C 1019	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C3
C 1020	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C4
C 1021	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C3
C 1022	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	A	B2
C 1024	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	f3
C 1025	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	f2
C 1026	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f2
C 1027	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	f2
C 1028	CHIP CAP.	82pF	50V	CH	GRM39CH820J50PT	K22174233		1-	A	C2
C 1029	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	C2
C 1030	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f1
C 1031	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	f2
C 1032	CHIP CAP.	82pF	50V	CH	GRM39CH820J50PT	K22174233		1-	B	e2
C 1033	CHIP CAP.	30pF	50V	CH	GRM39CH300J50PT	K22174222		1-	B	e3
C 1034	CHIP CAP.	30pF	50V	CH	GRM39CH300J50PT	K22174222		1-	B	e3
C 1035	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	e3
C 1036	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	e3
C 1037	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	e3
C 1038	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C3
C 1039	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C3
C 1040	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C2
C 1041	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	e2
C 1042	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	A	D2
C 1043	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	e1
C 1044	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	D2
C 1045	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E2
C 1046	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	d2
C 1047	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	d1
C 1048	CHIP CAP.	0.5pF	50V	CK	GRM39CK0R5C50PT	K22174201		1-	A	F2
C 1049	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F2
C 1050	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	c2
C 1051	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	c2
C 1052	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	b1
C 1053	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	c1
C 1055	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	b1
C 1056	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	b2
C 1057	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	c3
C 1058	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	b2
C 1059	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	b2
C 1060	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	G2
C 1061	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	a2
C 1062	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G3
C 1063	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	c1
C 1064	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	c1
C 1065	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	c1
C 1066	CHIP CAP.	10pF	50V	CH	GRM39CH100C50PT	K22174248		1-	B	b1
C 1067	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	b1
C 1068	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	F1
C 1069	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	F1
C 1070	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	b1
C 1071	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	b1
C 1072	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	G1
C 1073	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	G1
C 1074	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	G1

Main Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 1075	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	A	H1
C 1076	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	H1
C 1077	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	H2
C 1078	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	H3
C 1079	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	b3
C 1080	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G3
C 1081	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G3
C 1082	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	a3
C 1083	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	a3
C 1084	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	a4
C 1085	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G3
C 1086	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	a4
C 1087	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	G4
C 1088	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G4
C 1089	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	a4
C 1090	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	a4
C 1091	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	a4
C 1092	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	b4
C 1093	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	G5
C 1094	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	G5
C 1095	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	a5
C 1096	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	a5
C 1101	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G5
C 1102	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	a5
C 1103	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G5
C 1104	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	a5
C 1105	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	H5
C 1106	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	A	H5
C 1107	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G5
C 1108	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	a5
C 1109	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	a5
C 1110	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	a5
C 1111	CHIP TA.CAP.	0.1uF	20V		TEMSVA21D104M-8R	K78130020		1-	A	H4
C 1112	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	H4
C 1113	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	B	a4
C 1114	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	H4
C 1115	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	a4
C 1116	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	H5
C 1117	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	a5
C 1118	CHIP CAP.	10pF	50V	CH	GRM39CH100C50PT	K22174248		1-	B	a5
C 1119	CHIP CAP.	10pF	50V	CH	GRM39CH100C50PT	K22174248		1-	B	a5
C 1120	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	B	a6
C 1121	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	b5
C 1122	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	b5
C 1124	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	B	a5
C 1125	CHIP CAP.	0.0022uF	50V	B	GRM39B222K50PT	K22174822		1-	B	c5
C 1128	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	A	F5
C 1129	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	c4
C 1132	CHIP CAP.	0.0047uF	50V	B	GRM39B472K50PT	K22174833		1-	B	d4
C 1134	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	A	E4
C 1135	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	A	E4
C 1141	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	A	F5
C 1142	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	F5
C 1143	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	G5
C 1144	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G5
C 1145	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F5
C 1146	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	G5
C 1147	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	G6
C 1148	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G5
C 1149	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	A	F5
C 1150	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	b5
C 1152	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E5
C 1153	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	F5
C 1154	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	F5
C 1155	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F5
C 1158	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	A	E4
C 1159	CHIP CAP.	4.7uF	10V	BJ	LMK316BJ475ML-T	K22101802		1-	A	E5
C 1161	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	E4
C 1165	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	B	d5
C 1166	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	E5
C 1167	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	E5
C 1168	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	E5
C 1169	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	e5
C 1170	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	D5

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 1171	AL.ELECTRO.CAP.	100uF	16V		SMG1CVB101M 100UF	K40129060		1-	A	D5
C 1172	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	A	D5
C 1175	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	B	d4
C 1176	AL.ELECTRO.CAP.	100uF	16V		SMG1CVB101M 100UF	K40129060		1-	A	D4
C 1177	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471M 470UF	K40129066		1-	A	D4
C 1178	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C4
C 1179	AL.ELECTRO.CAP.	100uF	16V		SMG1CVB101M 100UF	K40129060		1-	A	D4
C 1180	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	D4
C 1181	AL.ELECTRO.CAP.	100uF	16V		SMG1CVB101M 100UF	K40129060		1-	A	D5
C 1182	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	d5
C 1191	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	F4
C 1192	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	A	F4
C 1194	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	b4
C 1195	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	b4
C 1196	AL.ELECTRO.CAP.	100uF	10V		10V101M5X11TR5	K46100004		1-	A	F4
C 1197	CHIP CAP.	4.7uF	10V	BJ	LMK316BJ475ML-T	K22101802		1-	B	b4
C 1198	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	F4
C 1199	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	F4
C 1200	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	F4
C 1201	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206		1-	A	G4
C 1202	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	G5
C 1203	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	b3
C 1205	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	F3
C 1206	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F3
C 1207	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	b2
C 1209	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G2
C 1210	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G2
C 1211	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	F2
C 1213	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	b2
C 1214	CHIP TA.CAP.	22uF	10V		TEMSVB21A226M-8R	K78100029		1-	A	G3
C 1215	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F3
C 1216	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	b3
C 1217	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	c3
C 1218	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	c2
C 1219	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	c2
C 1220	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	c3
C 1221	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	c2
C 1222	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	c2
C 1223	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	E1
C 1224	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	E1
C 1225	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	F1
C 1226	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	E1
C 1227	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	d1
C 1228	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	d1
C 1229	CHIP TA.CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015		1-	B	f3
C 1230	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	B	f3
C 1231	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	C3
C 1232	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f3
C 1233	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	C3
C 1234	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	f3
C 1235	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	C3
C 1236	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C3
C 1237	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	C3
C 1238	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B2
C 1239	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	B2
C 1240	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f2
C 1241	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	B	f2
C 1242	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	g2
C 1243	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g1
C 1244	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	g1
C 1245	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	A1
C 1246	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	B1
C 1247	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	A1
C 1248	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g1
C 1254	CHIP TA.CAP.	1uF	35V		TEMSVA1V105M-8R	K78160032		1-	A	C4
C 1255	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C5
C 1256	CHIP TA.CAP.	0.22uF	35V		TESVA1V224M1-8R	K78160027		1-	A	C5
C 1257	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	C4
C 1258	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	A2
C 1259	CHIP CAP.	0.01uF	50V	B	GRM39B103J50PT	K22174824		1-	A	A1
C 1260	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	A2
C 1261	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	A2
C 1265	CHIP CAP.	200pF	50V	CH	GRM39CH201J50PT	K22174242		1-	A	B4
C 1266	CHIP CAP.	360pF	50V	CH	GRM39CH361J50PT	K22174254		1-	A	B4

Main Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 1267	CHIP CAP.	200pF	50V	CH	GRM39CH201J50PT	K22174242		1-	A	B4
C 1269	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	g4
C 1270	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g4
C 1271	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	A4
C 1272	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A4
C 1273	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	A	A4
C 1274	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B4
C 1275	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	B4
C 1276	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	g4
C 1277	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g4
C 1278	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	A4
C 1279	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	A	A4
C 1280	CHIP CAP.	270pF	50V	CH	GRM39CH271J50PT	K22174251		1-	A	B4
C 1281	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	A	B4
C 1282	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	B4
C 1283	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	g4
C 1284	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g4
C 1285	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	A	A3
C 1286	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	A3
C 1287	CHIP CAP.	200pF	50V	CH	GRM39CH201J50PT	K22174242		1-	A	A3
C 1288	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	B3
C 1289	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	A	B3
C 1290	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	g3
C 1291	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g3
C 1292	CHIP CAP.	56pF	50V	CH	GRM39CH560J50PT	K22174229		1-	A	A3
C 1293	CHIP CAP.	24pF	50V	CH	GRM39CH240J50PT	K22174220		1-	A	A3
C 1294	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	B3
C 1295	CHIP CAP.	24pF	50V	CH	GRM39CH240J50PT	K22174220		1-	A	B3
C 1296	CHIP CAP.	62pF	50V	CH	GRM39CH620J50PT	K22174230		1-	A	B3
C 1297	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	g3
C 1298	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g3
C 1299	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	A3
C 1300	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	A	A3
C 1301	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	A	A3
C 1302	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	A	B3
C 1303	CHIP CAP.	18pF	50V	CH	GRM39CH180J50PT	K22174217		1-	A	B3
C 1304	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	g3
C 1305	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g3
C 1306	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	A	A3
C 1307	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	A	A3
C 1308	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	A	B3
C 1309	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	A	B3
C 1310	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	A	B3
C 1311	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	g3
C 1312	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g3
C 1313	CHIP CAP.	0.5pF	50V	CK	GRM39CK0R5C50PT	K22174201		1-	A	A2
C 1314	CHIP CAP.	8pF	50V	CH	GRM39CH080D50PT	K22174209		1-	A	A3
C 1315	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	A	A2
C 1316	CHIP CAP.	8pF	50V	CH	GRM39CH080D50PT	K22174209		1-	A	B2
C 1317	CHIP CAP.	0.5pF	50V	CK	GRM39CK0R5C50PT	K22174201		1-	A	B2
C 1318	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	g2
C 1319	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	g2
C 1320	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	F5
C 1321	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	b5
C 1322	CHIP CAP.	7pF	50V	CH	GRM39CH070D50PT	K22174208		1-	A	B3
C 1323	TANTALUM CAP.	2.2uF	25V		DN1E2R2M1S	K70147225		1-		
D 1001	DIODE				1SS244 T-77	G2060020		1-	A	A1
D 1002	DIODE				1SS244 T-77	G2060020		1-	A	A1
D 1003	DIODE				1SS244 T-77	G2060020		1-	A	A2
D 1004	DIODE				1SS244 T-77	G2060020		1-	A	A2
D 1005	DIODE				1SV271 TPH3	G2070476		1-	B	g2
D 1006	DIODE				1SS356TW11	G2070468		1-	B	f3
D 1007	DIODE				MC2848-T11-1	G2070694		1-	A	C3
D 1008	DIODE				DAN235U TL	G2070176		1-	A	C2
D 1009	DIODE				HSB88WSTR	G2070290		1-	A	C2
D 1010	DIODE				DAN235U TL	G2070176		1-	B	d2
D 1011	DIODE				DAN235U TL	G2070176		1-	B	d2
D 1012	DIODE				GMA01U-BT	G2060023		1-	A	E2
D 1013	DIODE				GMA01U-BT	G2060023		1-	A	E3
D 1014	DIODE				1SS302 TE85R	G2070088		1-	B	b2
D 1015	DIODE				1SS302 TE85R	G2070088		1-	B	b2
D 1016	DIODE				HSM198S-TR	G2070570		1-	B	b1
D 1017	DIODE				1SS356TW11	G2070468		1-	A	G1
D 1018	DIODE				DAN235U TL	G2070176		1-	B	a2

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
D 1019	DIODE				DAN235U TL	G2070176		1-	B	b3
D 1020	DIODE				1SV271 TPH3	G2070476		1-	A	G5
D 1021	DIODE				HSM198S-TR	G2070570		1-	A	H5
D 1022	DIODE				HSM198S-TR	G2070570		1-	B	a5
D 1023	DIODE				1SS355 TE-17	G2070470		1-	B	a4
D 1024	DIODE				HSM198S-TR	G2070570		1-	B	a5
D 1025	DIODE				HSM198S-TR	G2070570		1-	B	b5
D 1028	DIODE				HZM11NB1 TR	G2070788		1-	A	F5
D 1029	DIODE				DAN235U TL	G2070176		1-	A	G5
D 1030	DIODE				1SS356TW11	G2070468		1-	A	F5
D 1031	DIODE				DAN235U TL	G2070176		1-	A	F5
D 1032	DIODE				HZM3.9NB1 TR	G2070780		1-	A	D5
D 1033	DIODE				HZM6.8NB2 TR	G2070784		1-	A	D4
D 1034	DIODE				MC2848-T11-1	G2070694		1-	B	c4
D 1035	DIODE				MC2848-T11-1	G2070694		1-	A	F4
D 1036	DIODE				HSB88WSTR	G2070290		1-	A	G4
D 1037	DIODE				1SS356TW11	G2070468		1-	B	b3
D 1038	DIODE				1SS356TW11	G2070468		1-	A	E1
D 1039	DIODE				1SS356TW11	G2070468		1-	A	F3
D 1040	DIODE				HZM7.5NB3 TR	G2070786		1-	A	E1
D 1041	DIODE				1SV271 TPH3	G2070476		1-	A	C3
D 1042	DIODE				1SS356TW11	G2070468		1-	A	B3
D 1043	DIODE				1SS356TW11	G2070468		1-	B	g2
D 1044	DIODE				MC2848-T11-1	G2070694		1-	A	C4
D 1052	DIODE				1SV271 TPH3	G2070476		1-	A	A4
D 1053	DIODE				1SS356TW11	G2070468		1-	A	B4
D 1054	DIODE				1SV271 TPH3	G2070476		1-	A	A4
D 1055	DIODE				1SS356TW11	G2070468		1-	A	B4
D 1056	DIODE				1SV271 TPH3	G2070476		1-	A	A4
D 1057	DIODE				1SS356TW11	G2070468		1-	A	B4
D 1058	DIODE				1SV271 TPH3	G2070476		1-	A	A3
D 1059	DIODE				1SS356TW11	G2070468		1-	A	B3
D 1060	DIODE				1SV271 TPH3	G2070476		1-	A	A3
D 1061	DIODE				1SS356TW11	G2070468		1-	A	B3
D 1062	DIODE				1SV271 TPH3	G2070476		1-	A	A3
D 1063	DIODE				1SS356TW11	G2070468		1-	A	B3
D 1064	DIODE				1SV271 TPH3	G2070476		1-	A	A3
D 1065	DIODE				1SS356TW11	G2070468		1-	A	B3
D 1066	DIODE				1SV271 TPH3	G2070476		1-	A	A3
D 1067	DIODE				1SS356TW11	G2070468		1-	A	B3
D 1068	DIODE				GMA01U-BT	G2060023		1-		
J 1001	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	A2
J 1002	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	C4
J 1003	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	F3
J 1004	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	B1
J 1005	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	F5
J 1006	CONNECTOR				20FMZ-BT	P1090903		1-	A	B6
J 1007	CONNECTOR				20FMZ-BT	P1090903		1-	A	D6
J 1008	CONNECTOR				16FMZ-BT	P1090902		1-	A	G6
J 1009	CONNECTOR				16FMZ-BT	P1090902		1-	A	D1
J 1010	CONNECTOR				SB20-03WS	P0090610		1-	A	C5
J 1011	CONNECTOR				SB20-02WS	P0090609		1-	A	C4
J 1012	CONNECTOR				SC25-02WS	P0090621		1-	A	H3
J 1013	CONNECTOR				SB20-03WS	P0090610		1-	A	E4
J 1015	CONNECTOR				SB20-03WS	P0090610		1-	A	E4
J 1016	CONNECTOR				SB20-04WS	P0090611		1-	A	E5
J 1017	CONNECTOR				SB20-02WS	P0090609		1-	A	E5
JP1001	WIRE ASSY				GRN 65 2/2	T50506500		1-	A	E4
JP1002	WIRE ASSY				GRN 55 2/2	T50505500		1-	A	F4
L 1001	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	C4
L 1002	CHIP COIL	0.27uH			LQH3NR27M92M00-	L1690070		1-	A	C2
L 1003	CHIP COIL	10uH			LQH3N100K02M00-	L1690087		1-	A	D2
L 1004	M.RFC	10uH			FLC32T-100J	L1690215		1-	A	C3
L 1005	CHIP COIL	0.22uH			C2520C-R22J	L1690548		1-	A	D2
L 1006	CHIP COIL	1mH			LQH4N102K-S	L1690108		1-	A	D2
L 1007	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	E1
L 1008	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	G2
L 1009	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	G3
L 1010	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	G3
L 1011	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	H2
L 1012	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	H3
L 1013	CHIP COIL	1mH			LQH4N102K-S	L1690108		1-	A	G1
L 1014	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	H4
L 1015	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	H4

Main Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
L 1016	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	G5
L 1017	CHIP COIL	3.9uH			LQH3N3R9M02M00-	L1690082		1-	A	F5
L 1018	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	G5
L 1019	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	F5
L 1020	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	F5
L 1021	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	F5
L 1022	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	F5
L 1023	CHIP COIL	1mH			LQH4N102K-S	L1690108		1-	A	F4
L 1024	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	F3
L 1025	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	F3
L 1026	M.RFC	180uH			FLC32T-181J	L1690230		1-	A	A2
L 1028	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	A2
L 1029	M.RFC	470uH			FLC32T-471J	L1690235		1-	A	A4
L 1030	CHIP COIL	68uH			LQH3N680K02M00-	L1690097		1-	A	B4
L 1031	CHIP COIL	68uH			LQH3N680K02M00-	L1690097		1-	A	B4
L 1032	M.RFC	470uH			FLC32T-471J	L1690235		1-	A	B4
L 1033	CHIP COIL	27uH			LQH3N270K02M00-	L1690092		1-	A	A4
L 1034	CHIP COIL	68uH			LQH3N680K02M00-	L1690097		1-	A	A4
L 1035	CHIP COIL	15uH			LQH3N150K02M00-	L1690089		1-	A	A4
L 1036	CHIP COIL	68uH			LQH3N680K02M00-	L1690097		1-	A	B4
L 1037	CHIP COIL	27uH			LQH3N270K02M00-	L1690092		1-	A	B4
L 1038	CHIP COIL	18uH			LQH3N180K02M00-	L1690090		1-	A	A4
L 1039	CHIP COIL	39uH			LQH3N390K02M00-	L1690094		1-	A	A4
L 1040	CHIP COIL	10uH			LQH3N100K02M00-	L1690087		1-	A	A4
L 1041	CHIP COIL	39uH			LQH3N390K02M00-	L1690094		1-	A	B4
L 1042	CHIP COIL	18uH			LQH3N180K02M00-	L1690090		1-	A	B4
L 1043	CHIP COIL	10uH			LQH3N100K02M00-	L1690087		1-	A	A3
L 1044	CHIP COIL	27uH			LQH3N270K02M00-	L1690092		1-	A	A3
L 1045	CHIP COIL	5.6uH			LQH3N5R6M02M00-	L1690084		1-	A	A3
L 1046	CHIP COIL	27uH			LQH3N270K02M00-	L1690092		1-	A	B3
L 1047	CHIP COIL	10uH			LQH3N100K02M00-	L1690087		1-	A	B3
L 1048	CHIP COIL	5.6uH			LQH1N5R6J04	L1690999		1-	A	A3
L 1049	CHIP COIL	18uH			LQH1N180J04	L1691004		1-	A	A3
L 1050	CHIP COIL	3.3uH			LQH1N3R3J04	L1690504		1-	A	A3
L 1051	CHIP COIL	18uH			LQH1N180J04	L1691004		1-	A	B3
L 1052	CHIP COIL	5.6uH			LQH1N5R6J04	L1690999		1-	A	B3
L 1053	CHIP COIL	3.9uH			LQH1N3R9J04	L1690997		1-	A	A3
L 1054	CHIP COIL	12uH			LQH1N120J04	L1691002		1-	A	A3
L 1055	CHIP COIL	12uH			LQH1N120J04	L1691002		1-	A	B3
L 1056	CHIP COIL	3.9uH			LQH1N3R9J04	L1690997		1-	A	B3
L 1057	CHIP COIL	1.8uH			LQH1N1R8J04	L1690503		1-	A	B3
L 1058	CHIP COIL	2.2uH			LQH1N2R2J04	L1690338		1-	A	A3
L 1059	CHIP COIL	6.8uH			LQH1N6R8J04	L1690339		1-	A	A3
L 1060	CHIP COIL	1.2uH			LQH1N1R2K04	L1690502		1-	A	A3
L 1061	CHIP COIL	6.8uH			LQH1N6R8J04	L1690339		1-	A	B3
L 1062	CHIP COIL	2.2uH			LQH1N2R2J04	L1690338		1-	A	B3
L 1063	CHIP COIL	1.5uH			LQH1N1R5J04	L1690270		1-	A	A2
L 1064	CHIP COIL	4.7uH			LQH1N4R7J04	L1690998		1-	A	A3
L 1065	CHIP COIL	1uH			LQH1N1R0K04	L1690996		1-	A	A2
L 1066	CHIP COIL	4.7uH			LQH1N4R7J04	L1690998		1-	A	B3
L 1067	CHIP COIL	1.8uH			LQH1N1R8J04	L1690503		1-	A	B2
L 1068	CHIP COIL	5.6uH			LQH1N5R6J04	L1690999		1-	A	B2
Q 1001	FET				2SK520-T2B K41	G3805207A		1-	B	f2
Q 1002	FET				2SK520-T2B K41	G3805207A		1-	B	f2
Q 1003	TRANSISTOR				2SC2714YTE85R	G3327147Y		1-	B	e3
Q 1004	TRANSISTOR				2SC3356-T2B R25	G3333567E		1-	B	e3
Q 1005	TRANSISTOR				2SC2954-T2	G3329547		1-	A	C2
Q 1006	FET				3SK151GR TE85R	G4801517G		1-	B	c2
Q 1007	FET				3SK151GR TE85R	G4801517G		1-	B	a3
Q 1008	FET				3SK151GR TE85R	G4801517G		1-	B	a4
Q 1009	FET				3SK151GR TE85R	G4801517G		1-	B	a5
Q 1010	TRANSISTOR				2SC4047-TA	G3340477		1-	A	G5
Q 1011	FET				3SK151GR TE85R	G4801517G		1-	B	c1
Q 1012	FET				3SK151GR TE85R	G4801517G		1-	B	b1
Q 1013	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	G1
Q 1014	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	G1
Q 1015	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	B	a5
Q 1016	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	B	a4
Q 1017	FET				2SK160-T2B K6	G3801607F		1-	B	a4
Q 1018	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	B	a4
Q 1022	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	F5
Q 1023	IC				M5218AFP-600C	G1091607		1-	B	c4
Q 1025	IC				TC4S66F TE85R	G1090893		1-	A	E4
Q 1027	IC				TDA2822D013TR	G1091542		1-	A	E5

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
Q 1029	IC				TC7S04FU TE85R	G1091530		1-	A	D5
Q 1030	IC				TC7S08FU TE85R	G1091528		1-	A	D5
Q 1031	IC				TC7S08FU TE85R	G1091528		1-	A	D5
Q 1032	IC				TC7S04FU TE85R	G1091530		1-	A	D5
Q 1033	TRANSISTOR				2SC4047-TA	G3340477		1-	A	D5
Q 1034	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	B	d5
Q 1035	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	B	e4
Q 1036	TRANSISTOR				2SC4047-TA	G3340477		1-	A	D5
Q 1037	IC				TC7S04FU TE85R	G1091530		1-	A	D5
Q 1038	TRANSISTOR				2SC4047-TA	G3340477		1-	A	D5
Q 1039	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	B	d5
Q 1040	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	B	d5
Q 1041	TRANSISTOR				2SC4047-TA	G3340477		1-	A	D5
Q 1042	IC				TC4W66F TE12L	G1091493		1-	B	c4
Q 1043	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	F4
Q 1044	TRANSISTOR				2SC4047-TA	G3340477		1-	A	F4
Q 1045	FET				2SK302GR TE85R	G3803027G		1-	B	b2
Q 1046	FET				3SK151GR TE85R	G4801517G		1-	B	c2
Q 1047	TRANSISTOR				2SC4047-TA	G3340477		1-	A	F3
Q 1048	FET				3SK151GR TE85R	G4801517G		1-	A	E1
Q 1049	TRANSISTOR				2SC2714YTE85R	G3327147Y		1-	A	C3
Q 1050	TRANSISTOR				2SC3357-T2 RF	G3333577F		1-	A	B3
Q 1051	TRANSISTOR				2SC2954-T2	G3329547		1-	A	B2
Q 1052	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	B	g2
Q 1053	IC				M5223AFP 600C	G1092955		1-	A	C5
Q 1055	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	C4
Q 1058	IC				TDA7235	G1093172		1-	A	D4
Q 1059	TRANSISTOR				2SC4047-TA	G3340477		1-	A	F1
Q 1060	TRANSISTOR				2SC2714YTE85R	G3327147Y		1-	A	A2
Q 1061	IC				TC4W53F TE12L	G1091340		1-	B	b5
R 1001	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	B2
R 1002	CHIP RES.	680	1/4W	5%	RMC1/4 681JATP	J24245681		1-	B	g4
R 1003	CHIP RES.	680	1/4W	5%	RMC1/4 681JATP	J24245681		1-	B	f4
R 1004	CHIP RES.	680	1/4W	5%	RMC1/4 681JATP	J24245681		1-	B	g4
R 1005	CHIP RES.	680	1/4W	5%	RMC1/4 681JATP	J24245681		1-	B	g3
R 1006	CHIP RES.	680	1/4W	5%	RMC1/4 681JATP	J24245681		1-	B	g3
R 1007	CHIP RES.	680	1/4W	5%	RMC1/4 681JATP	J24245681		1-	B	f4
R 1008	CHIP RES.	680	1/4W	5%	RMC1/4 681JATP	J24245681		1-	B	f4
R 1009	CHIP RES.	680	1/4W	5%	RMC1/4 681JATP	J24245681		1-	B	g3
R 1010	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	g4
R 1011	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	f4
R 1012	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	g4
R 1013	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	f3
R 1014	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	g3
R 1015	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	f3
R 1016	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	f3
R 1017	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	g3
R 1018	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	f2
R 1019	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	B2
R 1020	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	f3
R 1021	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	B3
R 1022	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C3
R 1023	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	B	f2
R 1024	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225		1-	B	f2
R 1025	CHIP RES.	820	1/16W	5%	RMC1/16 821JATP	J24185821		1-	B	f3
R 1026	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f3
R 1027	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	B	e3
R 1028	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	f2
R 1030	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	A	C3
R 1031	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	e3
R 1032	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	B	e3
R 1033	CHIP RES.	390	1/16W	5%	RMC1/16 391JATP	J24185391		1-	B	e3
R 1034	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	C3
R 1035	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	B	e3
R 1036	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	e3
R 1037	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e3
R 1038	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	C3
R 1039	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	C3
R 1040	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	C2
R 1041	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C3
R 1042	CHIP RES.	33	1/16W	5%	RMC1/16 330JATP	J24185330		1-	B	e2
R 1045	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	e2
R 1046	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	E2
R 1047	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	d2

Main Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 1048	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	B	c1
R 1049	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F2
R 1050	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	F2
R 1051	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	c2
R 1052	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	c2
R 1053	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	B	c2
R 1054	CHIP RES.	820	1/16W	5%	RMC1/16 821JATP	J24185821		1-	B	c2
R 1055	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	c3
R 1056	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	c3
R 1057	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	b2
R 1058	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b2
R 1059	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b2
R 1060	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	a2
R 1061	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	c1
R 1062	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	B	c1
R 1063	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	c1
R 1064	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	b1
R 1065	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	b1
R 1066	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	F1
R 1067	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	c1
R 1068	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	c1
R 1069	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b1
R 1070	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	b1
R 1071	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	G1
R 1072	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	G1
R 1073	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	G1
R 1074	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	G1
R 1075	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	A	G1
R 1076	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	H3
R 1077	CHIP RES.	1.5k	1/16W	5%	RMC1/16 152JATP	J24185152		1-	A	H3
R 1078	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	b1
R 1079	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393		1-	B	b1
R 1080	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G1
R 1081	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	G3
R 1082	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	G3
R 1083	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	B	a3
R 1084	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	G3
R 1085	CHIP RES.	82	1/16W	5%	RMC1/16 820JATP	J24185820		1-	B	a3
R 1086	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	G3
R 1087	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	G3
R 1088	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	a4
R 1089	CHIP RES.	82	1/16W	5%	RMC1/16 820JATP	J24185820		1-	A	G4
R 1090	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	G3
R 1091	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	a4
R 1092	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	a4
R 1093	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	A	G4
R 1094	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G4
R 1095	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	G5
R 1096	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G5
R 1097	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	B	a5
R 1098	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	G5
R 1099	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	G5
R 1100	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	H5
R 1101	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	H4
R 1102	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	a5
R 1103	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	a5
R 1104	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	a5
R 1105	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	G5
R 1107	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	H5
R 1108	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	G4
R 1109	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	B	a5
R 1110	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	a5
R 1111	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	a5
R 1112	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	B	a5
R 1113	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	a5
R 1114	CHIP RES.	1.5M	1/16W	5%	RMC1/16 155JATP	J24185155		1-	B	a4
R 1116	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	A	H4
R 1117	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	a4
R 1118	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	H4
R 1119	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	H5
R 1120	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	H5
R 1121	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	H5
R 1122	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	H4
R 1131	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	a5

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 1132	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	a5
R 1133	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	B	a6
R 1134	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	b6
R 1142	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393		1-	B	c5
R 1143	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	B	c5
R 1144	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	B	c5
R 1147	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	c4
R 1149	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	F5
R 1150	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	F5
R 1151	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	F5
R 1152	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	G5
R 1153	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	F5
R 1154	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	G5
R 1155	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E5
R 1156	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	F5
R 1157	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	F5
R 1158	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	F5
R 1159	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G5
R 1160	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F5
R 1161	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	c5
R 1162	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	F5
R 1163	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	F5
R 1164	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F5
R 1166	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E4
R 1170	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c4
R 1171	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c5
R 1172	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E4
R 1173	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	E4
R 1175	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	E4
R 1176	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	E4
R 1178	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E4
R 1179	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E4
R 1183	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d4
R 1184	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d5
R 1185	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E5
R 1186	CHIP RES.	2.2	1/16W	5%	RMC1/16 2R2JATP	J24185229		1-	A	E5
R 1187	CHIP RES.	22	1W	5%	RMC1 220JTE	J24305220		1-	B	d5
R 1188	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d5
R 1189	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	D5
R 1190	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D5
R 1191	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	D5
R 1192	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D5
R 1193	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d4
R 1194	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E4
R 1195	CHIP RES.	4.7	1/16W	5%	RMC1/16 4R7JATP	J24185479		1-	A	C4
R 1196	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D5
R 1197	CHIP RES.	1	1W	5%	RMC1 1R0JTE	J24305010		1-	B	e5
R 1198	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e5
R 1199	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D5
R 1200	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	D5
R 1201	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	D4
R 1202	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	D4
R 1210	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	c4
R 1213	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	c4
R 1214	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	c4
R 1215	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	c4
R 1216	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	b4
R 1217	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	b4
R 1218	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	b4
R 1219	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b4
R 1220	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b4
R 1221	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	F4
R 1222	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	B	b4
R 1223	CHIP RES.	180	1/16W	5%	RMC1/16 181JATP	J24185181		1-	B	b4
R 1224	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	F4
R 1225	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	b5
R 1226	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	F3
R 1227	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	b4
R 1228	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	b4
R 1229	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	B	b4
R 1230	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	b3
R 1231	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b3
R 1232	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	G2
R 1233	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	G2

Main Unit

Parts List

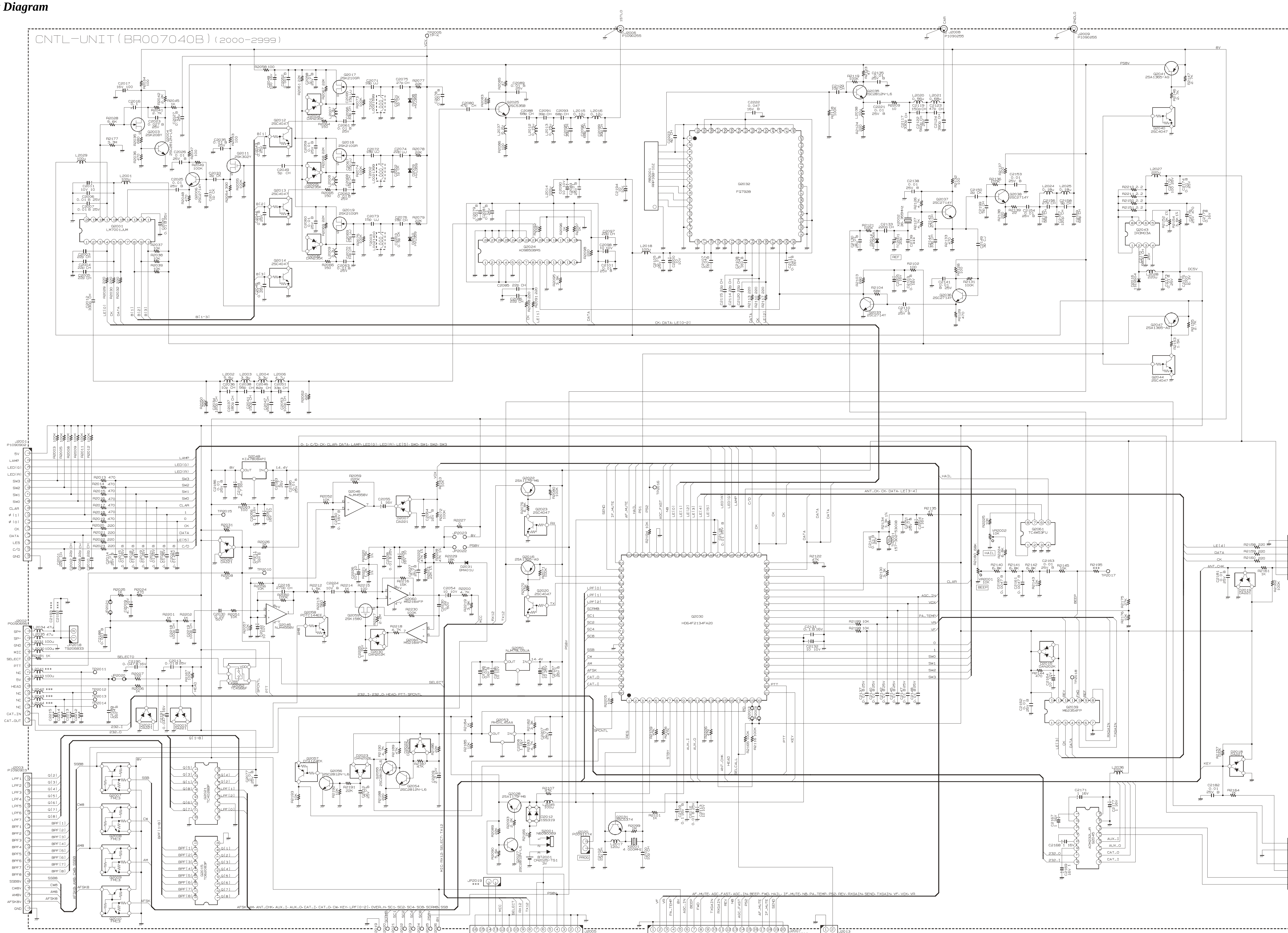
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 1235	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	B	b2
R 1237	CHIP RES.	27	1/16W	5%	RMC1/16 270JATP	J24185270		1-	B	b2
R 1238	CHIP RES.	12	1/16W	5%	RMC1/16 120JATP	J24185120		1-	B	b2
R 1239	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	b2
R 1240	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	c2
R 1241	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	F2
R 1242	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	c2
R 1243	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	A	F2
R 1244	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F2
R 1245	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	F3
R 1246	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	c2
R 1247	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	c3
R 1248	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	F2
R 1249	CHIP RES.	6.8	1/16W	5%	RMC1/16 6R8JATP	J24185689		1-	B	d2
R 1250	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	B	d2
R 1251	CHIP RES.	6.8	1/16W	5%	RMC1/16 6R8JATP	J24185689		1-	B	d2
R 1252	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	E2
R 1253	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E3
R 1255	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	F3
R 1256	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	A	F3
R 1261	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E1
R 1262	CHIP RES.	1.2k	1/16W	5%	RMC1/16 122JATP	J24185122		1-	A	E1
R 1263	CHIP RES.	82	1/16W	5%	RMC1/16 820JATP	J24185820		1-	A	E1
R 1264	CHIP RES.	820	1/16W	5%	RMC1/16 821JATP	J24185821		1-	A	E1
R 1265	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E1
R 1266	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	d1
R 1267	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	A	C3
R 1268	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	B	f3
R 1271	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	A	C3
R 1272	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	C3
R 1274	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	f3
R 1275	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	A	C3
R 1276	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B3
R 1277	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	B3
R 1278	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B3
R 1279	CHIP RES.	68	1/16W	5%	RMC1/16 680JATP	J24185680		1-	A	C3
R 1280	CHIP RES.	390	1/16W	5%	RMC1/16 391JATP	J24185391		1-	A	B3
R 1281	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	B	f2
R 1282	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	A	B2
R 1283	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B2
R 1284	CHIP RES.	1.8k	1/16W	5%	RMC1/16 182JATP	J24185182		1-	A	B2
R 1285	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	B	g2
R 1286	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	g2
R 1287	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A1
R 1288	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	g1
R 1289	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	A1
R 1290	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	B1
R 1291	CHIP RES.	39	1/16W	5%	RMC1/16 390JATP	J24185390		1-	A	B1
R 1292	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	B1
R 1305	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B5
R 1306	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C4
R 1307	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B4
R 1308	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	C4
R 1309	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B5
R 1310	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C5
R 1311	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B5
R 1312	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	C5
R 1313	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	C4
R 1314	CHIP RES.	1.5M	1/16W	5%	RMC1/16 155JATP	J24185155		1-	A	C4
R 1315	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	C5
R 1316	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	C5
R 1317	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	C5
R 1329	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	A1
R 1330	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	A1
R 1331	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	A2
R 1332	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	A2
R 1334	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	A2
R 1342	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	B4
R 1343	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	A	B4
R 1344	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	A	A2
R 1345	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	B2
R 1346	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	b6
R 1347	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	b5
R 1348	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	b6

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 1349	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	G5
R 1350	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F5
R 1351	CARBON FILM RES.	8.2k	1/6W	5%	RD16PJ822 8.2K	J01225822		1-		
R 1352	CARBON FILM RES.	2.2k	1/6W	5%	RD16PJ222 2.2K	J01225222		1-		
T 1001	COIL 07WIDE				9-1 2001F FR6	L0021350		1-	A	A2
T 1003	COIL 07RF	0.15uH			0.15U	L0021543		1-	A	C3
T 1004	COIL 07WIDE				9-1 2001F FR6	L0021350		1-	A	C2
T 1005	COIL WIDE-TRANS.				EKMA07PB07	L0021123		1-	A	C2
T 1006	COIL 07WIDE				4-1 2001F FR6	L0021351		1-	A	C2
T 1007	COIL 07WIDE				4-1 2001F FR6	L0021351		1-	A	D2
T 1008	COIL 07RF	47MHz			47.0M	L0021536		1-	A	D2
T 1009	COIL 07RF	47MHz			47.0M	L0021537		1-	A	E2
T 1010	COIL 07RF	36.3MHz			36.3M	L0021547		1-	A	E3
T 1011	COIL 07X2RF	10.7MHz			10.7M	L0021538		1-	A	F2
T 1012	COIL 07RF	10.7MHz			10.7M	L0021540		1-	A	G2
T 1013	COIL 07RF	10.7MHz			10.7M	L0021541		1-	A	F1
T 1014	COIL 07RF	10.7MHz			10.7M R12-3909A	L0021162		1-	A	G1
T 1015	COIL 07RF	10.7MHz			10.7M	L0021541		1-	A	G4
T 1016	COIL 07RF	10.7MHz			10.7M	L0021541		1-	A	G4
T 1017	COIL 07RF	10.7MHz			10.7M	L0021541		1-	A	G5
T 1018	COIL 07RF	10.7MHz			10.7M 0237-T160	L0022759		1-	A	G4
T 1019	COIL 07RF	10.7MHz			10.7M	L0021540		1-	A	F2
T 1020	COIL 07RF	47MHz			47.0M	L0021546		1-	A	E2
T 1021	COIL 07WIDE				9-1 2001F FR6	L0021350		1-	A	B2
T 1022	COIL 07RF	47MHz			47.0M	L0021546		1-	A	E1
T 1023	COIL 07WIDE				9-1 2001F FR6	L0021350		1-	A	B1
TC1002	TRIMMER CAP.	10pF			ECR-JA010A11X	K91000227		1-	A	G4
TP1003	TERMINAL				TP-K IPS-1136	Q5000050		1-	A	G4
TP1004	TERMINAL				TP-K IPS-1136	Q5000050		1-	A	G1
TP1005	TERMINAL				TP-K IPS-1136	Q5000050		1-	A	E1
VR1001	POT.	4.7k			RH03A3AS3X 4.7K	J51807472		1-	A	F4
VR1003	POT.	100			RH03A3A12X 100	J51807101		1-	A	G4
XF1001	XTAL FILTER				47M15AU	H1102090		1-	A	E2
XF1002	XTAL FILTER				10M2.4D	H1102339		1-	A	G2
	SHIELD CASE					R0128100		1-		
	SHIELD CASE COVER					R0128110		1-		

Main Unit

Note

Circuit Diagram



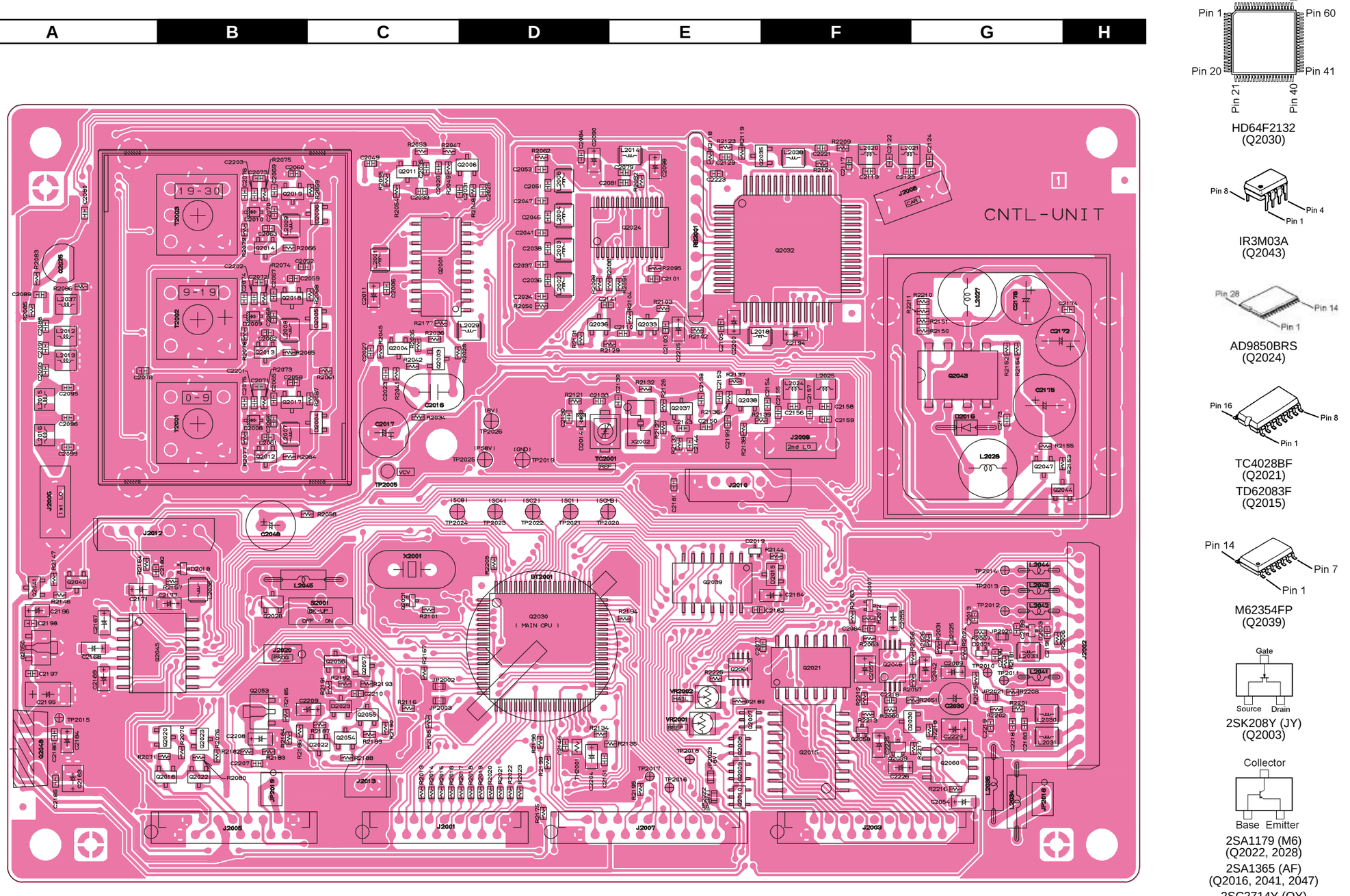
CNTL-UNIT(BR007040B)(2000-2999)
J2006 P1090255 1STLO
J2008 P1090255 CAR
J2009 P1090255 2NDLO
Q2001 LM7001JUM
Q2024 AD9850BRS
Q2032 FQ7928
RB2001 RRP16B-10Z
Q2043 IR3M03A
Q2030 HD64F2134FA20
Q2039 M62354FP
Q2045 ADM232LJR
Q2061 TC4W53FU
Q2021 TC4028BF
Q2015 TD62083F
Q2048 KIA7808API
Q2050 NJM78L05UA
Q2053 RH5VL45AA
Q2046 NJM4558V
Q2060 M5218AFP
Q2052 TC4S66F
J2001 P1090902
5V LAMP LED(G) LED(R) SW3 SW2 SW1 SW0 CLAR φ(1) φ(0) CK DATA LE5 C/D GND
J2002 P0090656
SP+ SP- GND MIC SELECT PTT NC 5V HEAD NC NC NC CAT_IN CAT_OUT
J2003 P1090903
LPF1 LPF2 LPF3 LPF4 LPF5 LPF6 LPF7 BPF1 BPF2 BPF3 BPF4 BPF5 BPF6 BPF7 BPF8 SSB8V CW8V AM8V AFSK8V GND
J2005 P1090902
GND NC SP+ SP- MICOUT GND SELECT RX12 TX12 14.4V 14.4V NC PS8V 5V GND GND
J2007 P1090903
GND VF VR PA_TEMP 8V AGC_IN BEEP FWD NC TXGAIN RXGAIN REV NB AGC_FAST PS2 NC AF_MUTE IF_MUTE SEND GND
J2013 P0090609
GND FSK OUT
J2010 P0090613
GND LE4 DATA CK ANT_CHK 14.4V
J2012 P0090614
TX12 GND NC PTT KEY GPS_O GPS_I

CNTL Unit

Note

CNTL Unit

Parts Layout



HD64F2132
(Q2030)

FQ7928
(Q2032)

IR3M03A
(Q2043)

KIA7808API
(Q2048)

AD9850BRS
(Q2024)

LM7001JUM
(Q2001)

TC4028BF
(Q2021)

ADM232LJR
(Q2045)

TD62083F
(Q2015)

M5218AFP
(Q2060)

M62354FP
(Q2039)

NJM4558V
(Q2046)

TC4W53FU
(Q2061)

2SK208Y (JY)
(Q2003)

2SK1580 (G13)
(Q2059)

2SA1179 (M6)
(Q2022, 2028)

2SA1365 (AF)
(Q2016, 2041, 2047)

2SC2714Y (QY)
(Q2006, 2033, 2036, 2037, 2038)

2SC2812 (L6)
(Q2004, 2035, 2054, 2055, 2056)

2SC5374 (NA)
(Q2031)

2SK210GR
(Q2017, 2018, 2019)

2SK302Y (TY)
(Q2011)

2SC4047 (ZY)
(Q2012, 2013, 2014, 2020, 2023, 2040, 2044)

DA221 (K)
(D2003, 2007, 2017, 2018, 2019, 2021, 2025)

DAN202K (N)
(D2015, 2018, 2022, 2023, 2030)

DAN235K (M)
(Q2004, 2005, 2006)

DAP202K (P)
(D2025)

DTA124EK (15)
(Q2057)

FMC3 (C3)
(Q2007, 2008, 2009, 2010)

NJM78L05UA
(Q2050)

PDTC144E (08)
(Q2058)

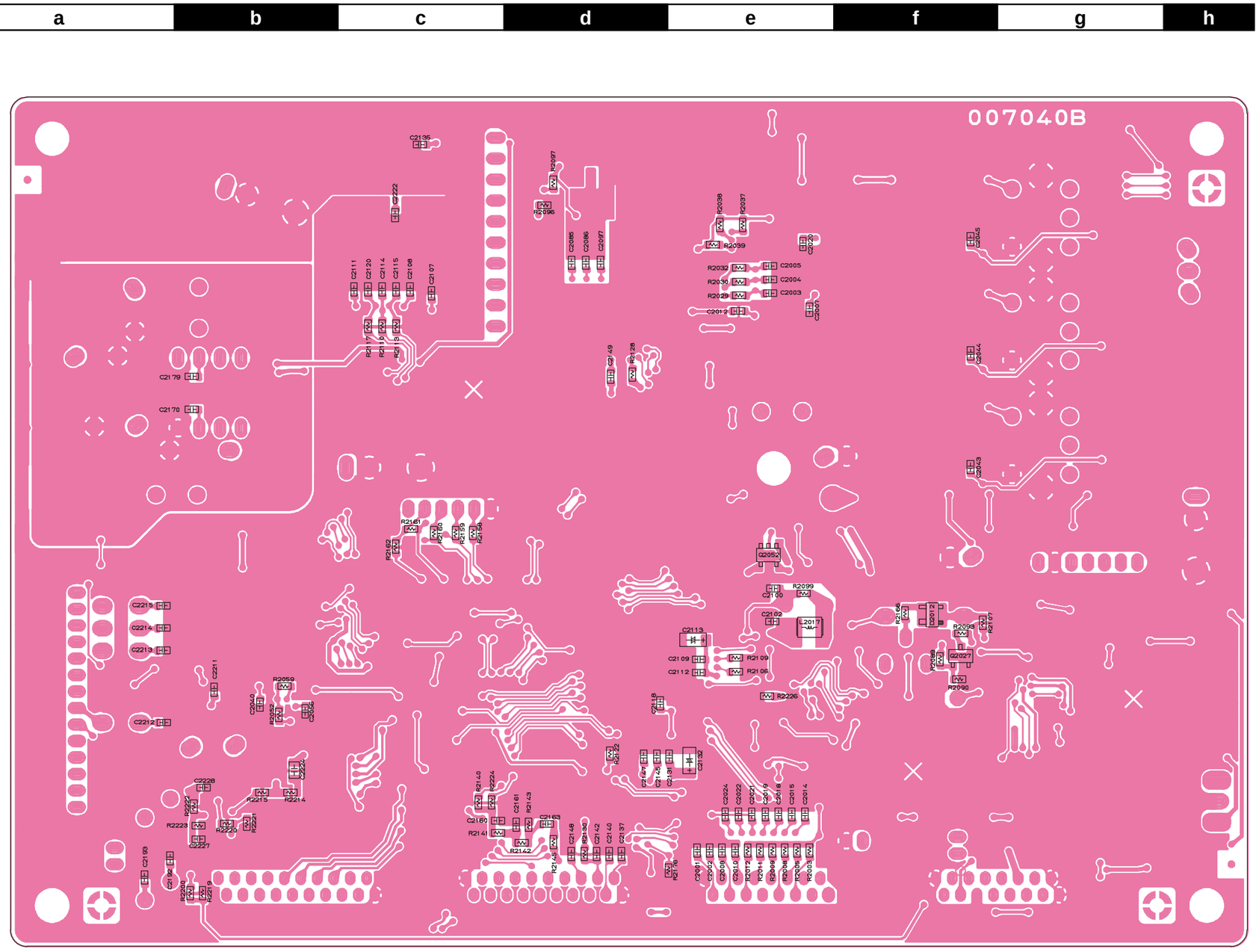
RH5VL45AA
(Q2053)

2SC535B
(Q2025)

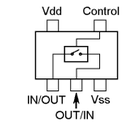
Side A

CNTL Unit

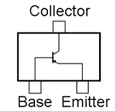
Parts Layout



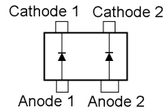
Side B



TC4S66F (C9)
(Q2052)



2SC2812 (L6)
(Q2027)



1SS319 (A4)
(D2012)

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
	PCB with Components					CS1745001				
	Printed Circuit Board					FR007040B		1-		
BT2001	LITHIUM BATT.		3V		CR2025-TS1	Q9000446		1-	A	D4
C 2001	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	e5
C 2002	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	e5
C 2003	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	e2
C 2004	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	e2
C 2005	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	e2
C 2006	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C2
C 2007	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e2
C 2008	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	e5
C 2009	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	G4
C 2010	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	e5
C 2011	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C2
C 2012	CHIP CAP.	330pF	50V	CH	GRM39CH331J50PT	K22174253		1-	B	e2
C 2013	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G4
C 2014	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e5
C 2015	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e5
C 2016	FILM CAP.	0.1uF	50V		AMZ0050K10400000000	K50170085		1-	A	C2
C 2017	AL.ELECTRO.CAP.	100uF	16V		16V101M6X7TR2	K46120007		1-	A	C3
C 2018	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e5
C 2019	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e5
C 2020	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e1
C 2021	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e5
C 2022	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e5
C 2023	CHIP CAP.	0.027uF	25V	B	GRM39B273K25PT	K22144810		1-	A	C2
C 2024	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e5
C 2025	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 2026	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C1
C 2027	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C2
C 2030	AL.ELECTRO.CAP.	0.22uF	50V		RB2-50VR22M-T2	K46170039		1-	A	G4
C 2031	CHIP CAP.	1pF	50V	CK	GRM39CK010C50PT	K22174202		1-	A	C1
C 2033	CHIP CAP.	2pF	50V	CK	GRM39CK020C50PT	K22174203		1-	A	C1
C 2034	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	A	D2
C 2035	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C1
C 2036	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	D2
C 2037	CHIP CAP.	180pF	50V	CH	GRM39CH181J50PT	K22174241		1-	A	D2
C 2038	CHIP CAP.	56pF	50V	CH	GRM39CH560J50PT	K22174229		1-	A	D1
C 2040	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b4
C 2041	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	D1
C 2042	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	G4
C 2043	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	f3
C 2044	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	f2
C 2045	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	f1
C 2046	CHIP CAP.	82pF	50V	CH	GRM39CH820J50PT	K22174233		1-	A	D1
C 2047	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	D1
C 2048	AL.ELECTRO.CAP.	100uF	16V		16V101M6X7TR2	K46120007		1-	A	B3
C 2049	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206		1-	A	C1
C 2051	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	D1
C 2052	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	B2
C 2053	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	D1
C 2054	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	G5
C 2055	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	A	F4
C 2056	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b4
C 2057	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	F4
C 2058	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B2
C 2059	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B2
C 2060	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B1
C 2061	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B3
C 2062	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B2
C 2063	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B1
C 2064	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	F4
C 2065	CHIP CAP.	15pF	50V	UJ	GRM39UJ150J50PT	K22174312		1-	A	B2
C 2066	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	B3
C 2067	CHIP CAP.	15pF	50V	UJ	GRM39UJ150J50PT	K22174312		1-	A	B2
C 2068	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	A	B2
C 2069	CHIP CAP.	15pF	50V	UJ	GRM39UJ150J50PT	K22174312		1-	A	B1
C 2070	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	B1
C 2071	CHIP CAP.	18pF	50V	UJ	GRM39UJ180J50PT	K22174314		1-	A	B2
C 2072	CHIP CAP.	18pF	50V	UJ	GRM39UJ180J50PT	K22174314		1-	A	B2
C 2073	CHIP CAP.	15pF	50V	UJ	GRM39UJ150J50PT	K22174312		1-	A	B1
C 2074	CHIP CAP.	22pF	50V	UJ	GRM39UJ220J50PT	K22174316		1-	A	B2
C 2075	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	A	B2
C 2076	CHIP CAP.	18pF	50V	CH	GRM39CH180J50PT	K22174217		1-	A	B1

CNTL Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 2077	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F4
C 2078	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	A2
C 2079	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	E1
C 2080	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	A	A1
C 2081	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E1
C 2084	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D1
C 2085	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	d2
C 2086	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	d2
C 2088	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	A	A2
C 2089	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A2
C 2090	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D1
C 2091	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	A2
C 2093	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	A	A2
C 2095	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	A2
C 2096	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	A	A3
C 2097	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	d2
C 2098	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	E1
C 2099	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	A3
C 2100	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	B	e3
C 2101	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E2
C 2102	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	B	e4
C 2103	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	E2
C 2105	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E2
C 2107	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	c2
C 2108	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	c2
C 2109	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	e4
C 2110	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E2
C 2111	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	c2
C 2112	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e4
C 2113	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	e4
C 2114	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	c2
C 2115	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	c2
C 2117	CHIP CAP.	330pF	50V	CH	GRM39CH331J50PT	K22174253		1-	A	F1
C 2118	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	d4
C 2119	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	F1
C 2120	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	c2
C 2122	CHIP CAP.	560pF	25V	CH	GRM39CH561J25PT	K22144201		1-	A	F1
C 2123	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	A	F1
C 2124	CHIP CAP.	390pF	50V	CH	GRM39CH391J50PT	K22174255		1-	A	G1
C 2129	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	E1
C 2130	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D3
C 2131	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d5
C 2132	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	e5
C 2133	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	D2
C 2135	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	c1
C 2137	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	d5
C 2138	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E2
C 2140	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	d5
C 2141	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D2
C 2142	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	d5
C 2143	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	A	E3
C 2144	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	E3
C 2145	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	d5
C 2146	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D5
C 2147	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	d5
C 2148	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	d5
C 2149	CHIP CAP.	3pF	50V	CJ	GRM39CJ030C50PT	K22174204		1-	B	d2
C 2150	CHIP CAP.	2pF	50V	CK	GRM39CK020C50PT	K22174203		1-	A	E3
C 2151	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D5
C 2153	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E2
C 2154	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F2
C 2155	CHIP CAP.	56pF	50V	CH	GRM39CH560J50PT	K22174229		1-	A	F3
C 2156	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	A	F3
C 2157	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	A	F3
C 2158	CHIP CAP.	9pF	50V	CH	GRM39CH090D50PT	K22174210		1-	A	F3
C 2159	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	A	F3
C 2160	CHIP CAP.	0.0047uF	50V	B	GRM39B472M50PT	K22174817		1-	B	c5
C 2161	CHIP CAP.	0.0047uF	50V	B	GRM39B472M50PT	K22174817		1-	B	d5
C 2162	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E4
C 2163	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	d5
C 2164	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	F4
C 2167	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	A4
C 2168	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	A4
C 2169	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	A4

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 2170	CHIP CAP.	680pF	25V	CH	GRM39CH681J25PT	K22144203		1-	B	b2
C 2171	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	A4
C 2172	AL.ELECTRO.CAP.	100uF	25V		25V101M6X11TR5	K46140005		1-	A	H2
C 2173	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	G3
C 2174	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	H2
C 2175	AL.ELECTRO.CAP.	1000uF	6.3V		ECA0JM102 1000UF	K40089038		1-	A	G2
C 2176	AL.ELECTRO.CAP.	470uF	25V		RE3-25V471M	K40149044		1-	A	G2
C 2177	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	B4
C 2179	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b2
C 2181	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	E3
C 2182	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A4
C 2183	CHIP TA.CAP.	4.7uF	25V		TEMSVB21E475M-8R	K78140019		1-	A	A5
C 2184	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	A5
C 2185	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A5
C 2186	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A5
C 2188	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809		1-	A	G5
C 2189	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	G4
C 2190	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	G4
C 2191	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	G4
C 2194	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	F2
C 2195	CHIP TA.CAP.	10uF	25V		TEMSVC1E106M12R	K78140021		1-	A	A4
C 2196	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	A4
C 2197	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	A4
C 2198	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	A4
C 2199	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206		1-	A	E3
C 2200	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	E2
C 2201	CHIP CAP.	1pF	50V	CK	GRM39CK010C50PT	K22174202		1-	A	B2
C 2202	CHIP CAP.	1pF	50V	CK	GRM39CK010C50PT	K22174202		1-	A	B2
C 2203	CHIP CAP.	0.5pF	50V	CK	GRM39CK0R5C50PT	K22174201		1-	A	B1
C 2204	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	D5
C 2205	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	E2
C 2207	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B5
C 2208	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	B5
C 2209	CHIP TA.CAP.	2.2uF	10V		TESVA1A225M1-8R	K78100021		1-	A	B5
C 2210	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C4
C 2211	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	b4
C 2216	CHIP CAP.	270pF	50V	CH	GRM39CH271J50PT	K22174251		1-	A	F4
C 2218	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	G5
C 2219	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	G5
C 2221	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	F1
C 2222	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	c1
C 2223	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205		1-	A	E1
C 2224	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	b5
C 2225	CHIP TA.CAP.	1uF	16V		TEMSVA21C105M-8R	K78120024		1-	A	F5
C 2226	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	F5
C 2227	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b5
C 2228	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b5
C 2229	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	G5
D 2003	DIODE				DA221 TL	G2070178		1-	A	G4
D 2004	DIODE				DAN235K T97	G2070082		1-	A	C3
D 2005	DIODE				DAN235K T97	G2070082		1-	A	C2
D 2006	DIODE				DAN235K T97	G2070082		1-	A	C1
D 2007	DIODE				DA221 TL	G2070178		1-	A	F4
D 2008	DIODE				HVU359TRF	G2070452		1-	A	B3
D 2009	DIODE				HVU359TRF	G2070452		1-	A	B2
D 2010	DIODE				HVU359TRF	G2070452		1-	A	B1
D 2012	DIODE				1SS319 TE85R	G2070080		1-	B	f4
D 2014	DIODE				HVU306A5TRF	G2070132		1-	A	D3
D 2015	DIODE				DAN202K T146	G2070182		1-	A	F4
D 2016	DIODE				11EQS04-TA1B2	G2060008		1-	A	G3
D 2018	DIODE				DA221 TL	G2070178		1-	A	B4
D 2019	DIODE				DA221 TL	G2070178		1-	A	E3
D 2021	DIODE				DA221 TL	G2070178		1-	A	G4
D 2022	DIODE				DAN202K T146	G2070182		1-	A	C5
D 2023	DIODE				DAN202K T146	G2070182		1-	A	C4
D 2025	DIODE				DA221 TL	G2070178		1-	A	G4
D 2030	DIODE				DAN202K T146	G2070182		1-	A	F5
D 2031	DIODE				GMA01U-BT	G2060023		1-		
J 2001	CONNECTOR				16FMZ-BT	P1090902		1-	A	C5
J 2002	CONNECTOR				SB20-14WS	P0090656		1-	A	H5
J 2003	CONNECTOR				20FMZ-BT	P1090903		1-	A	F5
J 2005	CONNECTOR				16FMZ-BT	P1090902		1-	A	B5
J 2006	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	A3
J 2007	CONNECTOR				20FMZ-BT	P1090903		1-	A	E5

CNTL Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
J 2008	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	G1
J 2009	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	F3
J 2010	CONNECTOR				SB20-06WS	P0090613		1-	A	E3
J 2012	CONNECTOR				SB20-07WS	P0090614		1-	A	A3
J 2013	CONNECTOR				SB20-02WS	P0090609		1-	A	C5
J 2020	CONNECTOR				IMSA-9202B-1-02-T	P0091174		1-	A	B4
JP2018	WIRE ASSY				AC002H	T9206833		1-	A	G5
JP2020	WIRE ASSY				GRN 35 2/2	T50503500		1-	A	G4
L 2001	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	C2
L 2002	M.RFC	5.6uH			FLC32T-5R6K	L1690212		1-	A	D2
L 2003	M.RFC	3.9uH			FLC32T-3R9K	L1690210		1-	A	D1
L 2004	M.RFC	3.3uH			FLC32T-3R3K	L1690209		1-	A	D1
L 2006	M.RFC	4.7uH			FLC32T-4R7K	L1690211		1-	A	D1
L 2007	M.RFC	3.3uH			FLC32T-3R3K	L1690209		1-	A	B3
L 2008	M.RFC	3.3uH			FLC32T-3R3K	L1690209		1-	A	B2
L 2009	M.RFC	3.3uH			FLC32T-3R3K	L1690209		1-	A	B1
L 2012	CHIP COIL	0.15uH			C2520C-R15J	L1690546		1-	A	A2
L 2013	CHIP COIL	0.15uH			C2520C-R15J	L1690546		1-	A	A2
L 2014	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	E1
L 2015	CHIP COIL	0.12uH			C2520C-R12J	L1690545		1-	A	A2
L 2016	CHIP COIL	0.12uH			C2520C-R12J	L1690545		1-	A	A3
L 2017	M.RFC	120uH			FLC32T-121J	L1690228		1-	B	e4
L 2018	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	E2
L 2020	CHIP COIL	0.56uH			C2520C-R56J	L1690553		1-	A	F1
L 2021	CHIP COIL	0.68uH			C2520C-R68J	L1690554		1-	A	F1
L 2024	CHIP COIL	0.18uH			C2520C-R18J	L1690547		1-	A	F2
L 2025	CHIP COIL	0.18uH			C2520C-R18J	L1690547		1-	A	F2
L 2027	M.RFC	220uH			RCH-875 221K	L1190395		1-	A	G2
L 2028	M.RFC	220uH			RCH-875 221K	L1190395		1-	A	G3
L 2029	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	D2
L 2030	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	G5
L 2031	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	G5
L 2033	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	G4
L 2034	M.RFC	47uH			LAL03NA470K	L1190214		1-	A	G5
L 2035	M.RFC	47uH			LAL03NA470K	L1190214		1-	A	G5
L 2036	M.RFC	100uH			FLC32T-101J	L1690227		1-	A	B4
L 2037	CHIP COIL	2.2uH			C2520C-2R2K	L1690731		1-	A	A2
L 2038	M.RFC	10uH			FLC32T-100J	L1690215		1-	A	F1
L 2045	M.RFC	100uH			LAL03TA101K	L1790107		1-	A	B4
Q 2001	IC				LM7001JUM-TE-L	G1093141		1-	A	C2
Q 2003	FET				2SK208Y TE85R	G3802087Y		1-	A	C2
Q 2004	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	C2
Q 2006	TRANSISTOR				2SC2714YTE85R	G3327147Y		1-	A	D1
Q 2007	TRANSISTOR				FMC3 T148	G3070046		1-	A	E5
Q 2008	TRANSISTOR				FMC3 T148	G3070046		1-	A	E5
Q 2009	TRANSISTOR				FMC3 T148	G3070046		1-	A	E5
Q 2010	TRANSISTOR				FMC3 T148	G3070046		1-	A	E5
Q 2011	FET				2SK302Y TE85R	G3803027Y		1-	A	C1
Q 2012	TRANSISTOR				2SC4047-TA	G3340477		1-	A	B3
Q 2013	TRANSISTOR				2SC4047-TA	G3340477		1-	A	B2
Q 2014	TRANSISTOR				2SC4047-TA	G3340477		1-	A	B1
Q 2015	IC				TD62083F TP1	G1092745		1-	A	F5
Q 2016	TRANSISTOR				2SA1365-T12-2G	G3113657G		1-	A	B5
Q 2017	FET				2SK210GR TE85R	G3802107G		1-	A	B2
Q 2018	FET				2SK210GR TE85R	G3802107G		1-	A	B2
Q 2019	FET				2SK210GR TE85R	G3802107G		1-	A	B1
Q 2020	TRANSISTOR				2SC4047-TA	G3340477		1-	A	B5
Q 2021	IC				TC4028BF(EL.N)	G1093433		1-	A	F4
Q 2022	TRANSISTOR				2SA1179M6-TA	G3111797F		1-	A	B5
Q 2023	TRANSISTOR				2SC4047-TA	G3340477		1-	A	B5
Q 2024	IC				AD9850BRS-REEL	G1092567		1-	A	E1
Q 2025	TRANSISTOR				2SC535BTZ	G3305354B		1-	A	A1
Q 2027	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	B	f4
Q 2028	TRANSISTOR				2SA1179M6-TA	G3111797F		1-	A	B4
Q 2030	IC				HD64F2134FA20 R0575	G1093591		1-	A	D4
Q 2031	TRANSISTOR				2SC5374-TL	G3353748		1-	A	C4
Q 2032	IC				FQ7928	G1092005		1-	A	F1
Q 2033	TRANSISTOR				2SC2714YTE85R	G3327147Y		1-	A	E2
Q 2035	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	E1
Q 2036	TRANSISTOR				2SC2714YTE85R	G3327147Y		1-	A	D2
Q 2037	TRANSISTOR				2SC2714YTE85R	G3327147Y		1-	A	E3
Q 2038	TRANSISTOR				2SC2714YTE85R	G3327147Y		1-	A	E2
Q 2039	IC				M62354FP-75NC	G1091842		1-	A	E4
Q 2040	TRANSISTOR				2SC4047-TA	G3340477		1-	A	A4

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
Q 2041	TRANSISTOR				2SA1365-T12-2G	G3113657G		1-	A	A4
Q 2043	IC				IR3M03A	G1090837		1-	A	G3
Q 2044	TRANSISTOR				2SC4047-TA	G3340477		1-	A	G3
Q 2045	IC				ADM232LJR-REEL	G1092742		1-	A	A4
Q 2046	IC				NJM4558V(TE1)	G1093250		1-	A	F4
Q 2047	TRANSISTOR				2SA1365-T12-2G	G3113657G		1-	A	G3
Q 2048	IC				KIA7808API	G1093164		1-	A	A5
Q 2050	IC				NJM78L05UA TE1	G1091325		1-	A	A4
Q 2052	IC				TC4S66F TE85R	G1090893		1-	B	e3
Q 2053	IC				RH5VL45AA-T1	G1090966		1-	A	B5
Q 2054	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	C5
Q 2055	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	C5
Q 2056	TRANSISTOR				2SC2812NL6-TB	G3328128F		1-	A	C4
Q 2057	TRANSISTOR				DTA124EK T146	G3070030		1-	A	C4
Q 2058	TRANSISTOR				PDTC144EE	G3070244		1-	A	F5
Q 2059	FET				2SK1580-T1	G3815808		1-	A	F5
Q 2060	IC				M5218AFP-600C	G1091607		1-	A	G5
Q 2061	IC				TC4W53FU TE12L	G1091675		1-	A	E4
R 2003	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e5
R 2005	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e5
R 2006	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2007	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	G4
R 2008	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e5
R 2009	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e5
R 2011	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e5
R 2012	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e5
R 2013	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	C5
R 2014	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	C5
R 2015	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	C5
R 2016	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	C5
R 2017	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	D5
R 2018	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	D5
R 2019	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	D5
R 2020	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D5
R 2021	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D5
R 2022	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D5
R 2023	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D5
R 2024	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	G4
R 2025	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2026	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2028	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	C2
R 2029	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	e2
R 2030	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	e2
R 2031	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	G4
R 2032	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	e2
R 2034	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C3
R 2035	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	A	C2
R 2036	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	C2
R 2037	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e1
R 2038	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e1
R 2039	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e1
R 2041	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	A	C2
R 2042	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	C2
R 2045	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	C2
R 2047	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C1
R 2048	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	D1
R 2049	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C1
R 2050	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D2
R 2051	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F4
R 2052	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b4
R 2053	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	C1
R 2054	CHIP RES.	390	1/16W	5%	RMC1/16 391JATP	J24185391		1-	A	C1
R 2055	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C1
R 2056	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F4
R 2057	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F4
R 2058	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	B3
R 2059	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	B	b4
R 2060	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	F5
R 2061	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	C2
R 2062	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D1
R 2063	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	F4
R 2064	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	B3
R 2065	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	B2
R 2066	CHIP RES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	A	B1

CNTL Unit

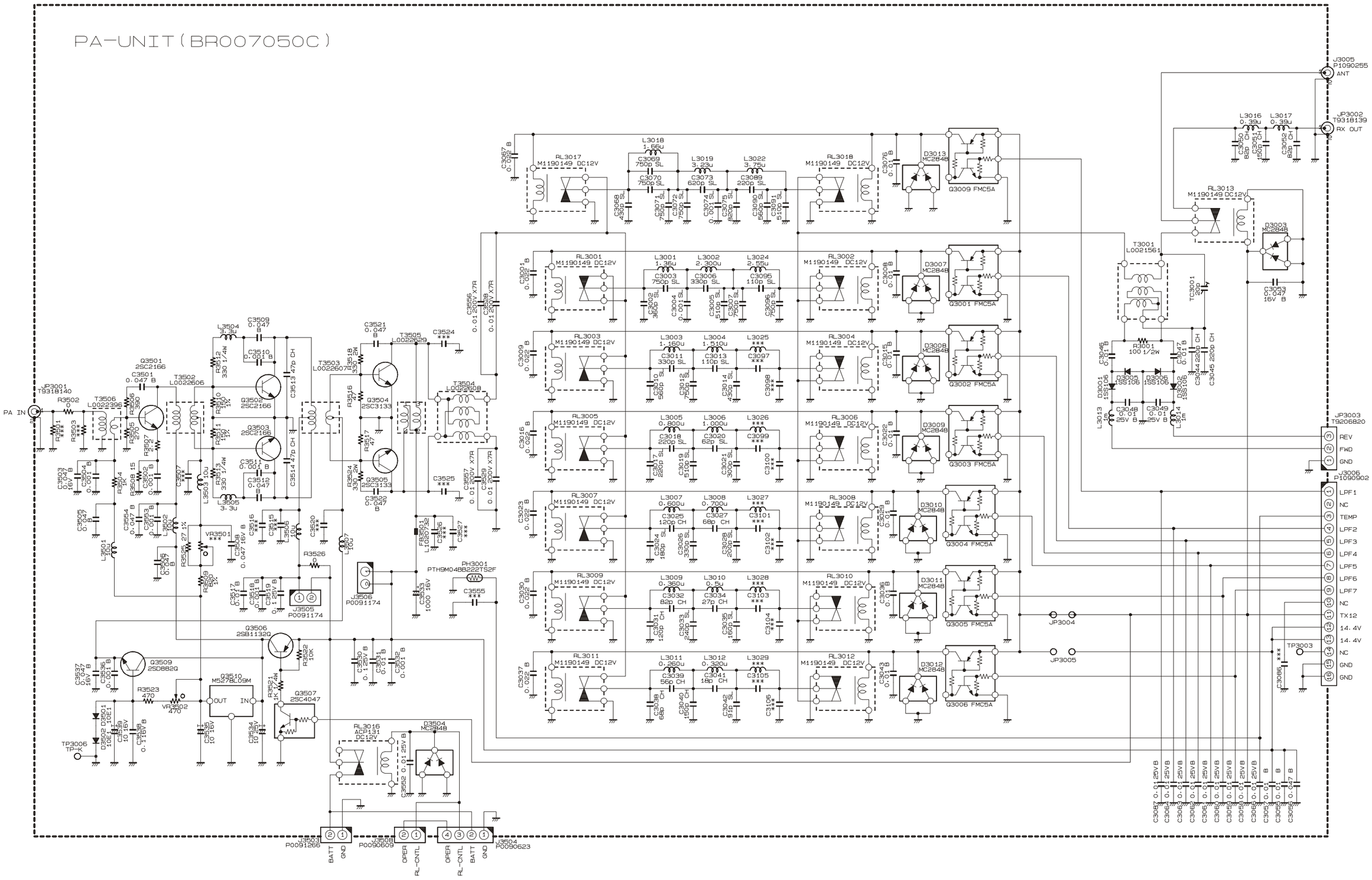
Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 2067	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	C2
R 2068	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	C2
R 2069	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	C1
R 2070	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	B5
R 2071	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B5
R 2072	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	F4
R 2073	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B2
R 2074	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B2
R 2075	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B1
R 2076	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	A	B5
R 2077	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	B3
R 2078	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	B2
R 2079	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	B1
R 2080	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B5
R 2083	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	A2
R 2085	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	A2
R 2086	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	A2
R 2088	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D2
R 2089	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	f4
R 2090	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	B	f4
R 2091	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	E2
R 2092	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E1
R 2093	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	f4
R 2095	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	A	E2
R 2096	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	d1
R 2097	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	d1
R 2098	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	D2
R 2099	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	B	e4
R 2101	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	C4
R 2102	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E2
R 2103	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	A	E2
R 2104	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	E2
R 2106	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	e4
R 2107	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f4
R 2109	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	e4
R 2110	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	c2
R 2113	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	c2
R 2116	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C5
R 2117	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	c2
R 2118	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E1
R 2119	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E1
R 2121	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D2
R 2122	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	d4
R 2123	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	E1
R 2124	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	F1
R 2126	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E2
R 2127	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E3
R 2128	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	d2
R 2129	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	D2
R 2130	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	d5
R 2131	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D2
R 2132	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E2
R 2133	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	E3
R 2134	CHIP RES.	3.3k	1/16W	1%	RMC1/16 332FTP	J24183332		1-	A	D5
R 2135	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	D5
R 2136	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E2
R 2137	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	E2
R 2138	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	E3
R 2139	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	A	E3
R 2140	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	c5
R 2141	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	c5
R 2142	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	d5
R 2143	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d5
R 2144	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	F3
R 2145	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d5
R 2146	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	A	A4
R 2147	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	A	A4
R 2150	CHIP RES.	2.2	1/16W	5%	RMC1/16 2R2JATP	J24185229		1-	A	G2
R 2151	CHIP RES.	2.2	1/16W	5%	RMC1/16 2R2JATP	J24185229		1-	A	G2
R 2152	CHIP RES.	1.2k	1/16W	1%	RMC1/16 122FTP	J24183122		1-	A	G2
R 2153	CHIP RES.	1.5k	1/16W	5%	RMC1/16 152JATP	J24185152		1-	A	G3
R 2154	CHIP RES.	3.6k	1/16W	1%	RMC1/16 362FTP	J24183362		1-	A	G2
R 2155	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	A	G3
R 2157	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B4

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
R 2158	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	c3
R 2159	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	c3
R 2160	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	c3
R 2161	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	c3
R 2162	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	c3
R 2163	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F4
R 2164	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	A4
R 2165	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C5
R 2166	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	f4
R 2167	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C4
R 2175	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	A	D5
R 2176	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d5
R 2177	CHIP RES.	3.3M	1/16W	5%	RMC1/16 335JATP	J24185335		1-	A	C2
R 2180	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	E4
R 2181	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2182	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	B5
R 2183	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	B5
R 2184	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	B5
R 2185	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B5
R 2186	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	B5
R 2187	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	C5
R 2188	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	A	C5
R 2189	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	C5
R 2190	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	C5
R 2191	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	C4
R 2192	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C4
R 2193	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C4
R 2194	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E4
R 2198	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D5
R 2199	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D5
R 2200	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b5
R 2201	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G5
R 2202	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G5
R 2205	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D4
R 2208	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 2209	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	F1
R 2210	CHIP RES.	2.2	1/16W	5%	RMC1/16 2R2JATP	J24185229		1-	A	G2
R 2211	CHIP RES.	2.2	1/16W	5%	RMC1/16 2R2JATP	J24185229		1-	A	G2
R 2212	CHIP RES.	1.5k	1/16W	5%	RMC1/16 152JATP	J24185152		1-	A	F4
R 2213	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	A	F5
R 2214	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	b5
R 2215	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	b5
R 2216	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	G5
R 2217	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225		1-	A	G5
R 2218	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	G5
R 2219	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	B	b5
R 2220	CHIP RES.	1.5k	1/16W	5%	RMC1/16 152FTP	J24183152		1-	B	b5
R 2221	CHIP RES.	1.2k	1/16W	5%	RMC1/16 122FTP	J24183122		1-	B	b5
R 2222	CHIP RES.	47k	1/16W	1%	RMC1/16 473FTP	J24183473		1-	B	b5
R 2223	CHIP RES.	22k	1/16W	1%	RMC1/16 223FTP	J24183223		1-	B	b5
R 2224	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	c5
R 2225	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-		
R 2226	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	e4
R 2227	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-		
R 2228	CHIP RES.	47k	1/16W	1%	RMC1/16 473FTP	J24183473		1-		
R 2229	CARBON FILM RES.	18k	1/6W	5%	RD16PJ183 18K	J01225183		1-		
RB2001	BLOCK RES.				RRP16B-10Z-10K/20K	J40900181		1-	A	E2
S 2001	SLIDE SWITCH				SSSS21	N6090069		1-	A	C4
T 2001	COIL 10RF	50MHz			50.0M	L0021599		1-	A	B2
T 2002	COIL 10RF				0.42U	L0021399		1-	A	B2
T 2003	COIL 10RF				0.36U	L0021400		1-	A	B1
TC2001	TRIMMER CAP.	20pF			ECR-JA020E11X	K91000228		1-	A	D3
TH2001	THERMISTOR				157-302-53008TP	G9090059		1-	A	D5
TP2005	TERMINAL				TP-K IPS-1136	Q5000050		1-	A	C3
VR2001	POT.	10k			RH03A3A14X 10K	J51807103		1-	A	E5
VR2002	POT.	10k			RH03A3A14X 10K	J51807103		1-	A	E4
X 2001	XTAL HC-49/U-S	4MHz			4.000MHZ	H0102984		1-	A	C4
X 2002	XTAL TOP-B	36.355MHz			36.355MHZ	H0103234		1-	A	E3
	SHIELD CASE					R0131630		1-		
	SHIELD CASE COVER					R0131640		1-		
	SHIELD CASE					RA0236100		1-		
	SHIELD CASE COVER					RA0236200		1-		
	SHIELD PLATE					R0139800		1-		
	LEAF SPRING					R0140031		1-		

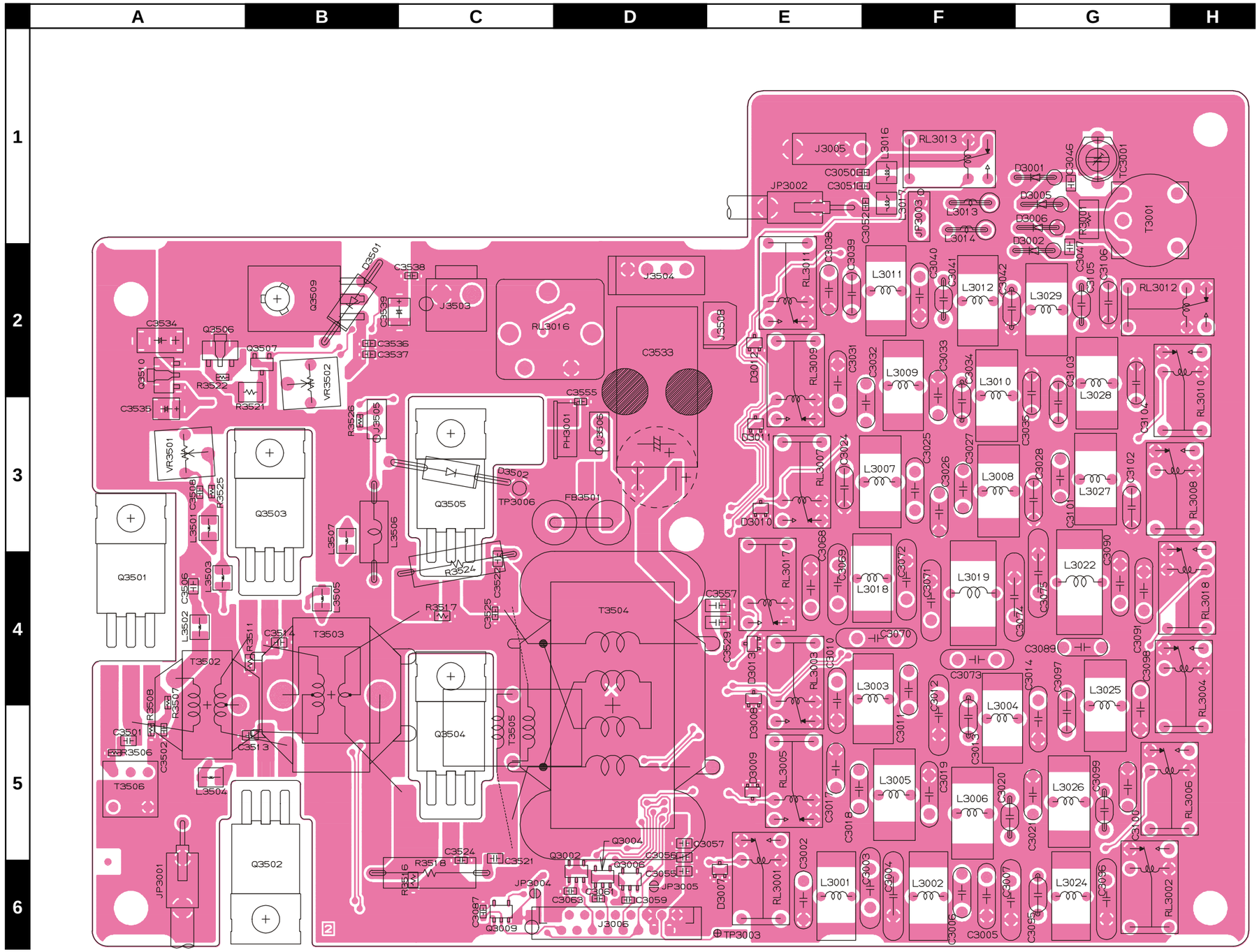
Note

PA-UNIT(BR007050C)



PA Unit

Note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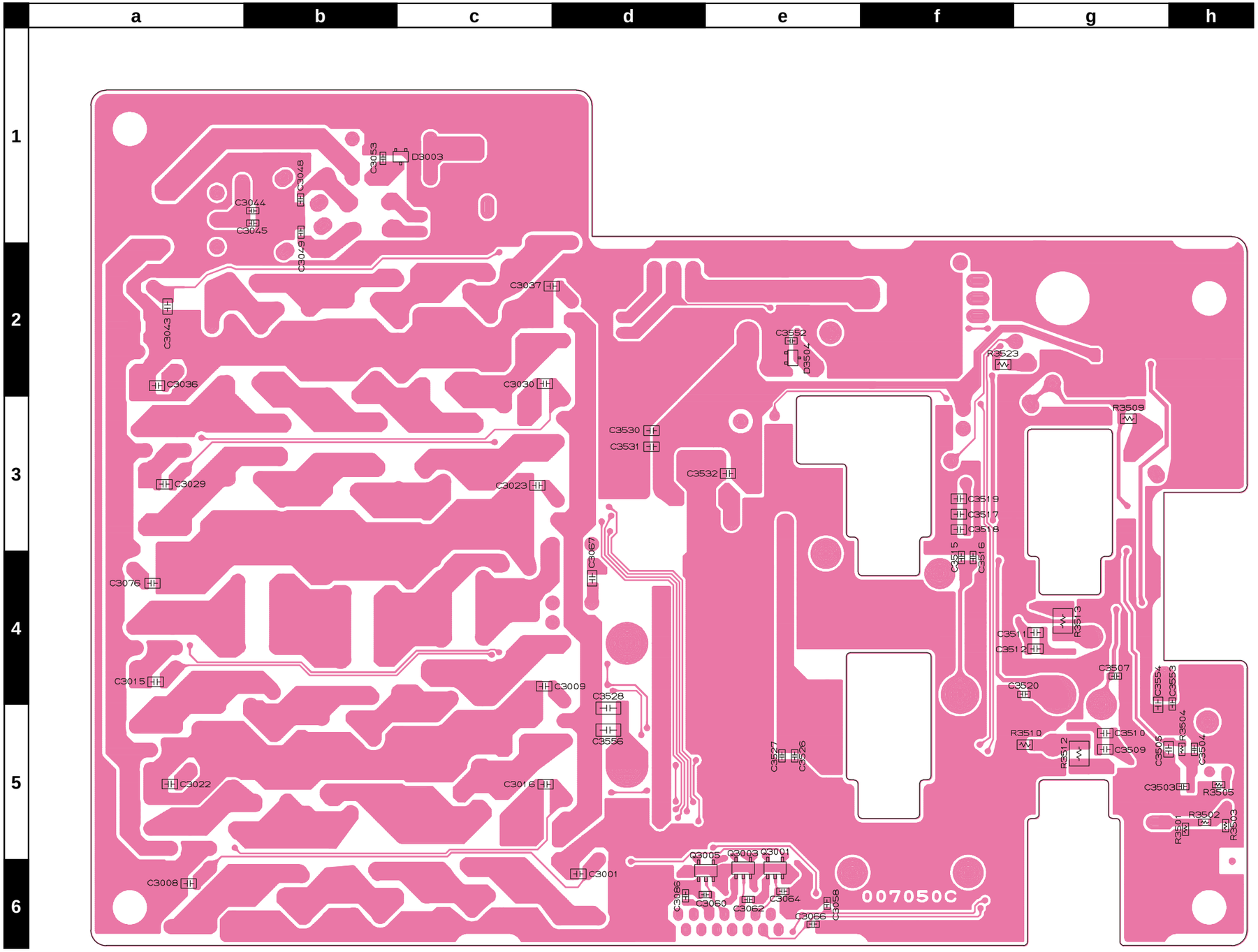
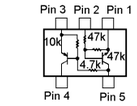
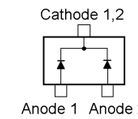
PA Unit

Parts Layout





FMC5A (C5)
(Q3001, 3003, 3005)



MC2848 (A6)
(D3003, 3504)

Side B

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
	PCB with Components					CS1742001				
	Printed Circuit Board					FR007050C		1-		
C 3001	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821		1-	B	d6
C 3002	CERAMIC CAP.	360pF	50V	SL	DD108-979SL361J50	K26171042		1-	A	E6
C 3003	CERAMIC CAP.	750pF	50V	SL	DD111-979SL751J50	K26171050		1-	A	F6
C 3004	CERAMIC CAP.	0.001uF	50V	SL	RBU11SL102J-6L36VC	K26171053		1-	A	F6
C 3005	CERAMIC CAP.	510pF	50V	SL	DD109-979SL511J50	K26171046		1-	A	F6
C 3006	CERAMIC CAP.	330pF	50V	SL	RBU08SL331J-6L36VC	K26171041		1-	A	F6
C 3007	CERAMIC CAP.	750pF	50V	SL	DD111-979SL751J50	K26171050		1-	A	F6
C 3008	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	B	a6
C 3009	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821		1-	B	c4
C 3010	CERAMIC CAP.	560pF	50V	SL	DD109-979SL561J50	K26171047		1-	A	E5
C 3011	CERAMIC CAP.	330pF	50V	SL	RBU08SL331J-6L36VC	K26171041		1-	A	F4
C 3012	CERAMIC CAP.	750pF	50V	SL	DD111-979SL751J50	K26171050		1-	A	F5
C 3013	CERAMIC CAP.	110pF	50V	SL	RBU05SL111J-6L36VC	K26171030		1-	A	F5
C 3014	CERAMIC CAP.	430pF	50V	SL	RBU08SL431J-6L36VC	K26171044		1-	A	G4
C 3015	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	B	a4
C 3016	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821		1-	B	c5
C 3017	CERAMIC CAP.	330pF	50V	SL	RBU08SL331J-6L36VC	K26171041		1-	A	E5
C 3018	CERAMIC CAP.	47pF	50V	CH	DD106-979CH470J50	K26170195		1-	A	E5
C 3019	CERAMIC CAP.	560pF	50V	SL	DD109-979SL561J50	K26171047		1-	A	F5
C 3020	CERAMIC CAP.	150pF	50V	CH	DD109-979CH151J50	K26171107		1-	A	F5
C 3021	CERAMIC CAP.	430pF	50V	SL	RBU08SL431J-6L36VC	K26171044		1-	A	G5
C 3022	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	B	a5
C 3023	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821		1-	B	c3
C 3024	CERAMIC CAP.	220pF	50V	SL	DD107-979SL221J50	K26171037		1-	A	E3
C 3025	CERAMIC CAP.	43pF	50V	CH	RBU06CH430J-6L36VC	K26171113		1-	A	F3
C 3026	CERAMIC CAP.	390pF	50V	SL	RBU08SL391J-6L36VC	K26171043		1-	A	F3
C 3027	CERAMIC CAP.	150pF	50V	CH	DD109-979CH151J50	K26171107		1-	A	F3
C 3028	CERAMIC CAP.	150pF	50V	CH	DD109-979CH151J50	K26171107		1-	A	G3
C 3029	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	B	a3
C 3030	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821		1-	B	c2
C 3031	CERAMIC CAP.	120pF	50V	CH	DD109-979CH121J50	K26171105		1-	A	E2
C 3032	CERAMIC CAP.	82pF	50V	CH	DD107-979CH820J50	K26171101		1-	A	F2
C 3033	CERAMIC CAP.	240pF	50V	SL	RBU06SL241J-6L36VC	K26171038		1-	A	F2
C 3034	CERAMIC CAP.	27pF	50V	CH	DD105-979CH270J50	K26170189		1-	A	F2
C 3035	CERAMIC CAP.	160pF	50V	SL	RBU06SL161J-6L36VC	K26171034		1-	A	G2
C 3036	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	B	a2
C 3037	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821		1-	B	c2
C 3038	CERAMIC CAP.	120pF	50V	CH	DD109-979CH121J50	K26171105		1-	A	E2
C 3039	CERAMIC CAP.	15pF	50V	CH	DD104-979CH150J50	K26170183		1-	A	E2
C 3040	CERAMIC CAP.	160pF	50V	SL	RBU06SL161J-6L36VC	K26171034		1-	A	F2
C 3041	CERAMIC CAP.	43pF	50V	CH	RBU06CH430J-6L36VC	K26171113		1-	A	F2
C 3042	CERAMIC CAP.	130pF	50V	SL	RBU05SL131J-6L36VC	K26171032		1-	A	F2
C 3043	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	B	a2
C 3044	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	b1
C 3045	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	b1
C 3046	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	A	G1
C 3047	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	A	G2
C 3048	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b1
C 3049	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	b1
C 3050	CHIP CAP.	82pF	50V	CH	GRM39CH820J50PT	K22174233		1-	A	F1
C 3051	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	F1
C 3052	CHIP CAP.	82pF	50V	CH	GRM39CH820J50PT	K22174233		1-	A	F1
C 3053	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	b1
C 3055	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	A	D6
C 3056	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	A	D5
C 3057	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	A	D5
C 3058	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e6
C 3059	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D6
C 3060	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	d6
C 3061	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D6
C 3062	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e6
C 3063	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	D6
C 3064	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e6
C 3066	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e6
C 3067	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821		1-	B	d4
C 3068	CERAMIC CAP.	430pF	50V	SL	RBU08SL431J-6L36VC	K26171044		1-	A	E4
C 3069	CERAMIC CAP.	750pF	50V	SL	DD111-979SL751J50	K26171050		1-	A	E4
C 3070	CERAMIC CAP.	750pF	50V	SL	DD111-979SL751J50	K26171050		1-	A	E4
C 3071	CERAMIC CAP.	750pF	50V	SL	DD111-979SL751J50	K26171050		1-	A	F4
C 3072	CERAMIC CAP.	750pF	50V	SL	DD111-979SL751J50	K26171050		1-	A	F4
C 3073	CERAMIC CAP.	620pF	50V	SL	RBU10SL621J-6L36VC	K26171048		1-	A	F4
C 3074	CERAMIC CAP.	0.001uF	50V	SL	RBU11SL102J-6L36VC	K26171053		1-	A	F4

PA Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
C 3075	CERAMIC CAP.	820pF	50V	SL	RBU11SL821J-6L36VC	K26171051		1-	A	G4
C 3076	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	B	a4
C 3087	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C6
C 3089	CERAMIC CAP.	220pF	50V	SL	DD107-979SL221J50	K26171037		1-	A	G4
C 3090	CERAMIC CAP.	560pF	50V	SL	DD109-979SL561J50	K26171047		1-	A	G4
C 3091	CERAMIC CAP.	510pF	50V	SL	DD109-979SL511J50	K26171046		1-	A	G4
C 3095	CERAMIC CAP.	110pF	50V	SL	RBU05SL111J-6L36VC	K26171030		1-	A	G6
C 3096	CERAMIC CAP.	750pF	50V	SL	DD111-979SL751J50	K26171050		1-	A	G6
C 3099	CERAMIC CAP.	300pF	50V	SL	DD107-979SL301J50	K26171040		1-	A	G5
C 3100	CERAMIC CAP.	180pF	50V	SL	DD106-979SL181J50	K26171035		1-	A	G5
C 3105	CERAMIC CAP.	100pF	50V	CH	DD107-979CH101J50	K26171103		1-	A	G2
C 3106	CERAMIC CAP.	39pF	50V	CH	DD105-979CH390J50	K26170193		1-	A	G2
C 3501	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	A	A5
C 3502	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	A5
C 3503	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	h5
C 3504	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	h5
C 3505	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	B	g5
C 3506	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	A	A4
C 3508	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	A3
C 3509	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	B	g5
C 3510	CHIP CAP.	0.001uF	50V	B	GRM40B102K50PT	K22170825		1-	B	g5
C 3511	CHIP CAP.	0.001uF	50V	B	GRM40B102K50PT	K22170825		1-	B	g4
C 3512	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	B	g4
C 3513	CHIP CAP.	47pF	50V	CH	GRM40CH470J50PT	K22170227		1-	A	B5
C 3514	CHIP CAP.	47pF	50V	CH	GRM40CH470J50PT	K22170227		1-	A	B4
C 3517	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	B	f3
C 3518	CHIP CAP.	0.001uF	50V	B	GRM40B102K50PT	K22170825		1-	B	f3
C 3519	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	B	f3
C 3521	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	A	C5
C 3522	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	A	C4
C 3524	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	C5
C 3525	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	C4
C 3528	CHIP CAP.	0.01uF	200V	X7R	GRM42-6X7R103K200PT	K22231802		1-	B	d5
C 3529	CHIP CAP.	0.01uF	200V	X7R	GRM42-6X7R103K200PT	K22231802		1-	A	E4
C 3530	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811		1-	B	d3
C 3531	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826		1-	B	d3
C 3532	CHIP CAP.	0.001uF	50V	B	GRM40B102K50PT	K22170825		1-	B	e3
C 3533	AL.ELECTRO.CAP.	1000uF	16V		RJ4-16V102M 1000UF	K40129073		1-	A	D3
C 3534	CHIP TA.CAP.	10uF	25V		TEMSVC1E106M12R	K78140021		1-	A	A2
C 3535	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	A3
C 3536	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	B2
C 3537	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	B2
C 3538	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C2
C 3539	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	B2
C 3552	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	e2
C 3553	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	h4
C 3554	CHIP CAP.	0.047uF	50V	B	GRM40B473M50PT	K22170823		1-	B	g4
C 3556	CHIP CAP.	0.01uF	200V	X7R	GRM42-6X7R103K200PT	K22231802		1-	B	d5
C 3557	CHIP CAP.	0.01uF	200V	X7R	GRM42-6X7R103K200PT	K22231802		1-	A	E4
D 3001	DIODE				1SS106RE	G2050005		1-	A	F1
D 3002	DIODE				1SS106RE	G2050005		1-	A	F2
D 3003	DIODE				MC2848-T11-1	G2070694		1-	B	c1
D 3005	DIODE				1SS106RE	G2050005		1-	A	G1
D 3006	DIODE				1SS106RE	G2050005		1-	A	G1
D 3007	DIODE				MC2848-T11-1	G2070694		1-	A	E6
D 3008	DIODE				MC2848-T11-1	G2070694		1-	A	E4
D 3009	DIODE				MC2848-T11-1	G2070694		1-	A	E5
D 3010	DIODE				MC2848-T11-1	G2070694		1-	A	E3
D 3011	DIODE				MC2848-T11-1	G2070694		1-	A	E3
D 3012	DIODE				MC2848-T11-1	G2070694		1-	A	E2
D 3013	DIODE				MC2848-T11-1	G2070694		1-	A	E4
D 3501	DIODE				10E1	G2090306		1-	A	B2
D 3502	DIODE				10E1	G2090306		1-	A	C3
D 3504	DIODE				MC2848-T11-1	G2070694		1-	B	e2
FB3501	RFC WITH BEADS				3A RI5.8X6.4-2	L1020732		1-	A	D3
J 3005	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	E1
J 3006	CONNECTOR				16FMZ-BT	P1090902		1-	A	D6
J 3503	CONNECTOR				B2P-VH	P0091266		1-	A	C2
J 3504	CONNECTOR				SC25-04WS	P0090623		1-	A	D2
J 3505	CONNECTOR				IMSA-9202B-1-02-T	P0091174		1-	A	B3
J 3506	CONNECTOR				IMSA-9202B-1-02-T	P0091174		1-	A	D3
J 3508	CONNECTOR				SB20-02WS	P0090609		1-	A	E2
JP3001	WIRE ASSY				ORG 100 TMP/TMP(B1)	T9318140		1-	A	A5
JP3002	WIRE ASSY				GRN 240 TMP/TMP(B1)	T9318139		1-	A	E1

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
JP3003	WIRE ASSY				AC002H	T9206820		1-	A	F1
L 3001	TOROIDAL COIL	1.36uH			1.36U T37-6	L0022696		1-	A	E6
L 3002	TOROIDAL COIL	2.3uH			2.300U T37-6 AMIDON	L0021567		1-	A	F6
L 3003	TOROIDAL COIL	1.16uH			1.160U T37-6 AMIDON	L0021568		1-	A	E4
L 3004	TOROIDAL COIL	1.51uH			1.510U T37-6 AMIDON	L0021569		1-	A	F5
L 3005	TOROIDAL COIL	1uH			1.000U T37-6 AMIDON	L0021571		1-	A	F5
L 3006	TOROIDAL COIL	0.9uH			0.90U T37-6	L0022735		1-	A	F5
L 3007	TOROIDAL COIL	0.7uH			0.700U T37-6 AMIDON	L0021573		1-	A	F3
L 3008	TOROIDAL COIL	0.5uH			0.5U T37-6	L0022683		1-	A	F3
L 3009	TOROIDAL COIL	0.36uH			0.360U T37-6 AMIDON	L0021574A		1-	A	F2
L 3010	TOROIDAL COIL	0.5uH			0.5U T37-6	L0022683		1-	A	F2
L 3011	TOROIDAL COIL	0.29uH			0.290U T44-10	L0022739		1-	A	F2
L 3012	TOROIDAL COIL	0.275uH			0.275U T44-10	L0022740		1-	A	F2
L 3013	M.RFC	1mH			LAL03VB102K	L1790164		1-	A	F1
L 3014	M.RFC	1mH			LAL03VB102K	L1790164		1-	A	F1
L 3016	CHIP COIL	0.39uH			C2520C-R39J	L1690551		1-	A	F1
L 3017	CHIP COIL	0.39uH			C2520C-R39J	L1690551		1-	A	F1
L 3018	TOROIDAL COIL	1.66uH			1.66U T37-6	L0022697		1-	A	E4
L 3019	TOROIDAL COIL	3.23uH			3.23U T44-2	L0022698		1-	A	F4
L 3022	TOROIDAL COIL	3.75uH			3.75U T44-2	L0022470A		1-	A	G4
L 3024	TOROIDAL COIL	2.55uH			2.55U T37-6	L0022695		1-	A	G6
L 3026	TOROIDAL COIL	0.55uH			0.55U T37-6	L0022736		1-	A	G5
L 3029	TOROIDAL COIL	0.15uH			0.150U T44-10	L0022741		1-	A	G2
L 3501	CHIP COIL	10uH			LQH3N100K02M00-	L1690087		1-	A	A3
L 3502	CHIP COIL	10uH			LQH3N100K02M00-	L1690087		1-	A	A4
L 3503	CHIP COIL	10uH			LQH3N100K02M00-	L1690087		1-	A	A4
L 3504	CHIP COIL	3.3uH			LQH3N3R3M02M00-	L1690081		1-	A	A5
L 3505	CHIP COIL	3.3uH			LQH3N3R3M02M00-	L1690081		1-	A	B4
L 3506	M.RFC	10uH			LAL04NA100K	L1190138		1-	A	B3
L 3507	CHIP COIL	10uH			LQH3N100K02M00-	L1690087		1-	A	B3
PH3001	POSISTOR				PTH9M04BB222TS2F333	G9090080		1-	A	C3
Q 3001	TRANSISTOR				FMC5A T148	G3070185		1-	B	e6
Q 3002	TRANSISTOR				FMC5A T148	G3070185		1-	A	D6
Q 3003	TRANSISTOR				FMC5A T148	G3070185		1-	B	e6
Q 3004	TRANSISTOR				FMC5A T148	G3070185		1-	A	D6
Q 3005	TRANSISTOR				FMC5A T148	G3070185		1-	B	d6
Q 3006	TRANSISTOR				FMC5A T148	G3070185		1-	A	D6
Q 3009	TRANSISTOR				FMC5A T148	G3070185		1-	A	C6
Q 3501	TRANSISTOR				2SC2166	G3321660		1-	A	A3
Q 3502	TRANSISTOR				2SC2166	G3321660		1-	A	B6
Q 3503	TRANSISTOR				2SC2166	G3321660		1-	A	B3
Q 3504	TRANSISTOR				2SC3133-21	G3090086		1-	A	C4
Q 3505	TRANSISTOR				2SC3133-21	G3090086		1-	A	C3
Q 3506	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	A	A2
Q 3507	TRANSISTOR				2SC4047-TA	G3340477		1-	A	B2
Q 3509	TRANSISTOR				2SD882Q	G3408820Q		1-	A	B2
Q 3510	IC				M5278L09M 600C	G1093102		1-	A	A2
R 3001	CHIP RES.	100	1/2W	5%	RMC1/2 101JCTP	J24275101		1-	A	G1
R 3502	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	h5
R 3504	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	h5
R 3505	CHIP RES.	27	1/16W	5%	RMC1/16 271JATP	J24185271		1-	B	h5
R 3506	CHIP RES.	390	1/16W	5%	RMC1/16 391JATP	J24185391		1-	A	A5
R 3507	CHIP RES.	2.2	1/16W	5%	RMC1/16 2R2JATP	J24185229		1-	A	A4
R 3508	CHIP RES.	15	1/16W	5%	RMC1/16 150JATP	J24185150		1-	A	A5
R 3509	CHIP RES.	820	1/10W	1%	RMC1/10 821FTP	J24209322		1-	B	g3
R 3510	CHIP RES.	150	1/10W	1%	RMC1/10 151FTP	J24209321		1-	B	g5
R 3511	CHIP RES.	150	1/10W	1%	RMC1/10 151FTP	J24209321		1-	A	B4
R 3512	CHIP RES.	330	1/4W	5%	RMC1/4 331JATP	J24245331		1-	B	g5
R 3513	CHIP RES.	330	1/4W	5%	RMC1/4 331JATP	J24245331		1-	B	g4
R 3516	CHIP RES.	47	1/10W	5%	RMC1/10T 470J	J24205470		1-	A	C6
R 3517	CHIP RES.	47	1/10W	5%	RMC1/10T 470J	J24205470		1-	A	C4
R 3518	METAL FILM RES.	330	2W	5%	ERG-2SJ331P 330	J22339036		1-	A	B6
R 3521	CHIP RES.	1k	1/4W	5%	RMC1/4 102JATP	J24245102		1-	A	B2
R 3522	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A2
R 3523	CHIP RES.	470	1/10W	5%	RMC1/10T 471J	J24205471		1-	B	f2
R 3524	METAL FILM RES.	330	2W	5%	ERG-2SJ331P 330	J22339036		1-	A	C4
R 3525	CHIP RES.	27	1/16W	1%	RMC1/16 270FTP	J24183270		1-	A	A3
R 3526	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	B3
RL3001	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	E5
RL3002	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	G5
RL3003	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	E5
RL3004	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	G4
RL3005	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	E5
RL3006	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	G5

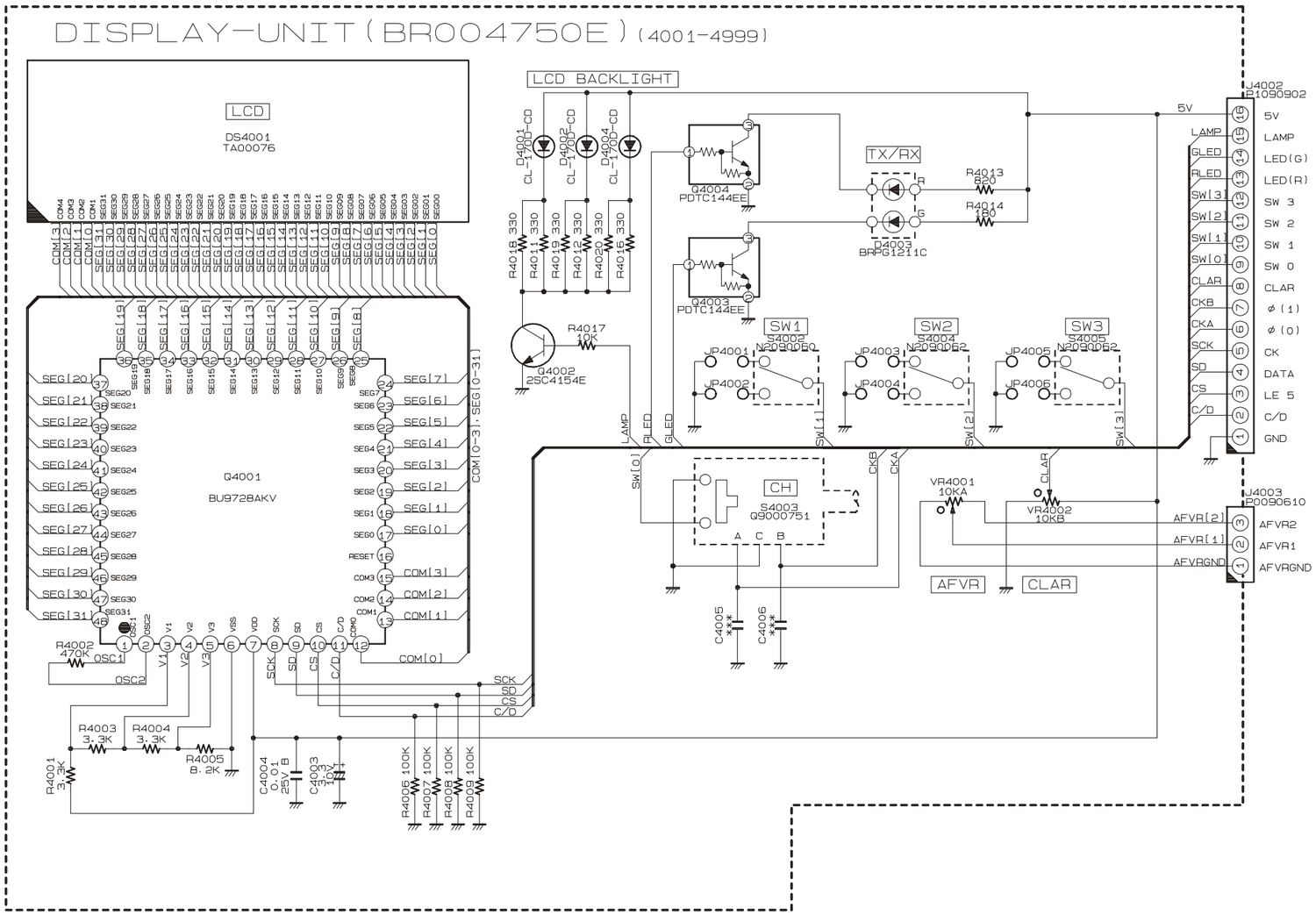
PA Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
RL3007	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	E3
RL3008	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	G3
RL3009	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	E3
RL3010	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	G2
RL3011	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	E2
RL3012	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	H2
RL3013	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	F1
RL3016	RELAY		DC12V		ACP131 DC12V	M1190152		1-	A	C2
RL3017	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	E4
RL3018	RELAY		DC12V		AHY123 DC12V	M1190149		1-	A	G3
T 3001	COIL 10WIDE				40L FR9X5	L0021561		1-	A	G1
T 3502	COIL PWR-WIDE				3A RIB8X14X6.5	L0022606		1-	A	A4
T 3503	COIL PWR-WIDE				3A5 RIB10X20X10	L0022607		1-	A	B4
T 3504	COIL PWR-WIDE				D12A RIB16X32X16	L0022608		1-	A	D4
T 3505	TOROIDAL COIL				D12A TR14X8X8	L0022629		1-	A	C5
T 3506	COIL 07WIDE				4-1 3A6 RIB4X7	L0022396		1-	A	A5
TC3001	TRIMMER CAP.	20pF			ECV1ZW20X53T 20PF	K91000029		1-	A	G1
TP3006	TERMINAL				TP-K IPS-1136	Q5000050		1-	A	C3
VR3502	POT.	470			RH063MCS2R 470B	J51794471		1-	A	B2
	LEAD CLAMP				L=38	S5000057		1-		

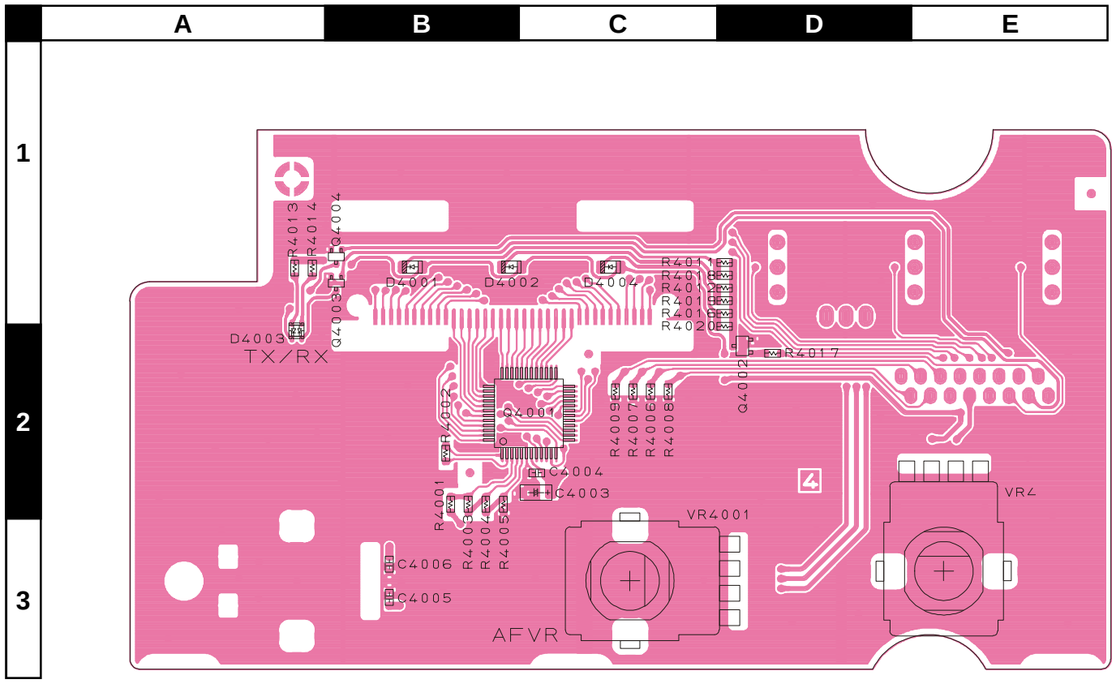
Display Unit

Circuit Diagram

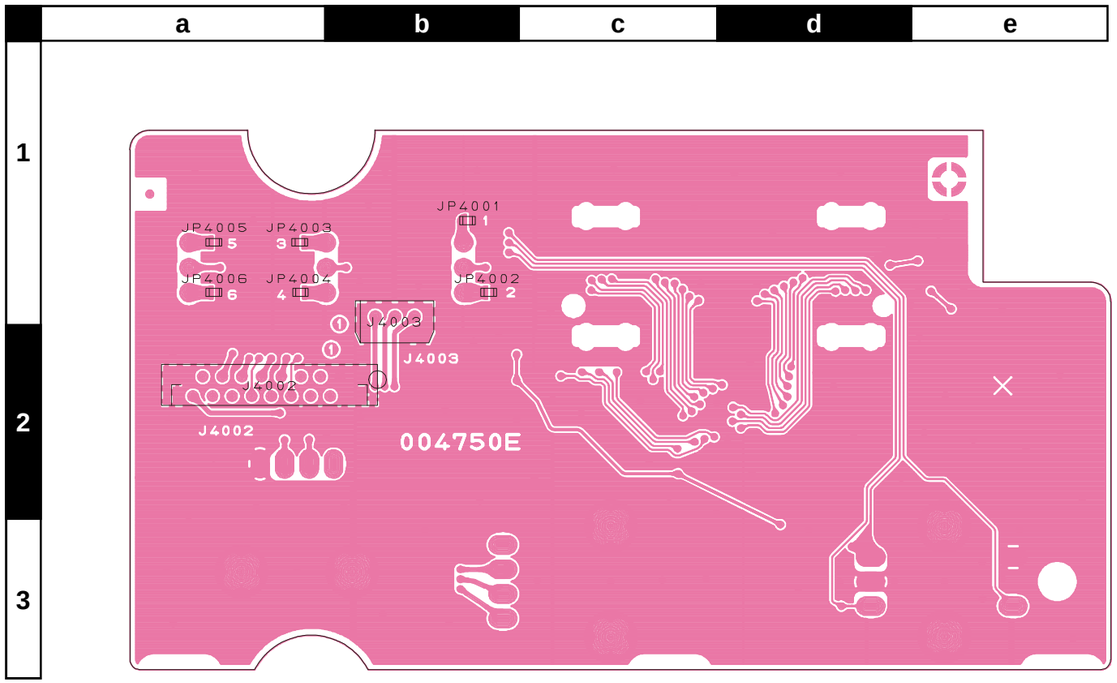


Display Unit

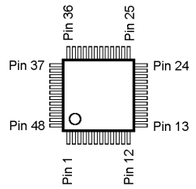
Parts Layout



Side A



Side B



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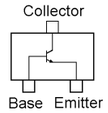

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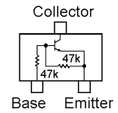
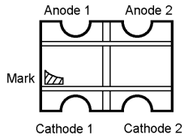


PDTC144EE (08)
(Q4003, 4004)



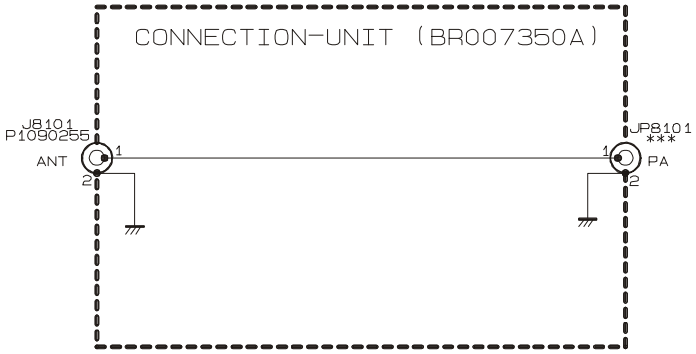
BRPG1211C
(D4003)

Parts List

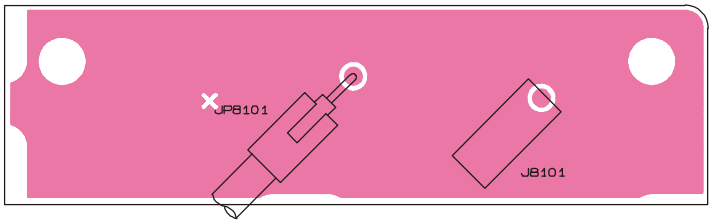
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
	PCB with Components					CB1554001				
	Printed Circuit Board					FR004750E		1-		
C 4003	CHIP TA.CAP.	3.3uF	10V		TEMSVA1A335M-8R	K78100015		1-	A	C2
C 4004	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	C2
D 4001	LED				CL-170D-CD-T	G2070344		1-	A	B1
D 4002	LED				CL-170D-CD-T	G2070344		1-	A	B1
D 4003	LED				BRPG1211C-TR	G2070654		1-	A	A2
D 4004	LED				CL-170D-CD-T	G2070344		1-	A	C1
DS4001	LCD				TA00076	G6090136		1-	A	B1
J 4002	CONNECTOR				16FMZ-BT	P1090902		1-	B	a2
J 4003	CONNECTOR				SB20-03WS	P0090610		1-	B	b1
Q 4001	IC				BU9728AKV	G1093131		1-	A	C2
Q 4002	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	D2
Q 4003	TRANSISTOR				PDTC144EE	G3070244		1-	A	B1
Q 4004	TRANSISTOR				PDTC144EE	G3070244		1-	A	B1
R 4001	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	B2
R 4002	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	A	B2
R 4003	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	B2
R 4004	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	B2
R 4005	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	A	B2
R 4006	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C2
R 4007	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C2
R 4008	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C2
R 4009	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C2
R 4011	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D1
R 4012	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D1
R 4013	CHIP RES.	820	1/16W	5%	RMC1/16 821JATP	J24185821		1-	A	A1
R 4014	CHIP RES.	180	1/16W	5%	RMC1/16 181JATP	J24185181		1-	A	A1
R 4016	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D1
R 4017	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D2
R 4018	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D1
R 4019	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D1
R 4020	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D2
S 4002	TOGGLE SWITCH				ATE1D-2M3-10	N2090060		1-	A	D1
S 4003	ROTARY ENCODER				EC12E12244A3	Q9000751		1-	A	A3
S 4004	TOGGLE SWITCH				ATE1F-2M3-10	N2090062		1-	A	E1
S 4005	TOGGLE SWITCH				ATE1F-2M3-10	N2090062		1-	A	E1
VR4001	POT.				RK11K114005N 10KA	J60800248		1-	A	C3
VR4002	POT.				RK11K1140A37 10KB	J60800249		1-	A	E3
	LCD HOLDER					RA0236300		1-		
	LIGHT GUIDE					RA0238500		1-		
	DIFFUSER SHEET					RA0237300		1-		
	INTER CONNECTOR					RA0236400		1-		

Connection Unit

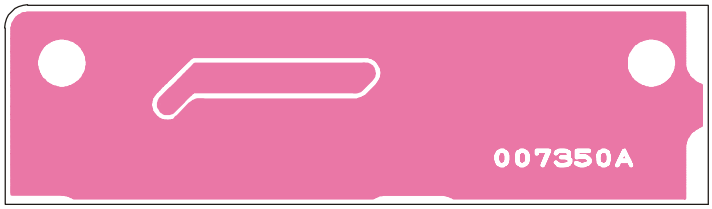
Circuit Diagram



Parts Layout



Side A



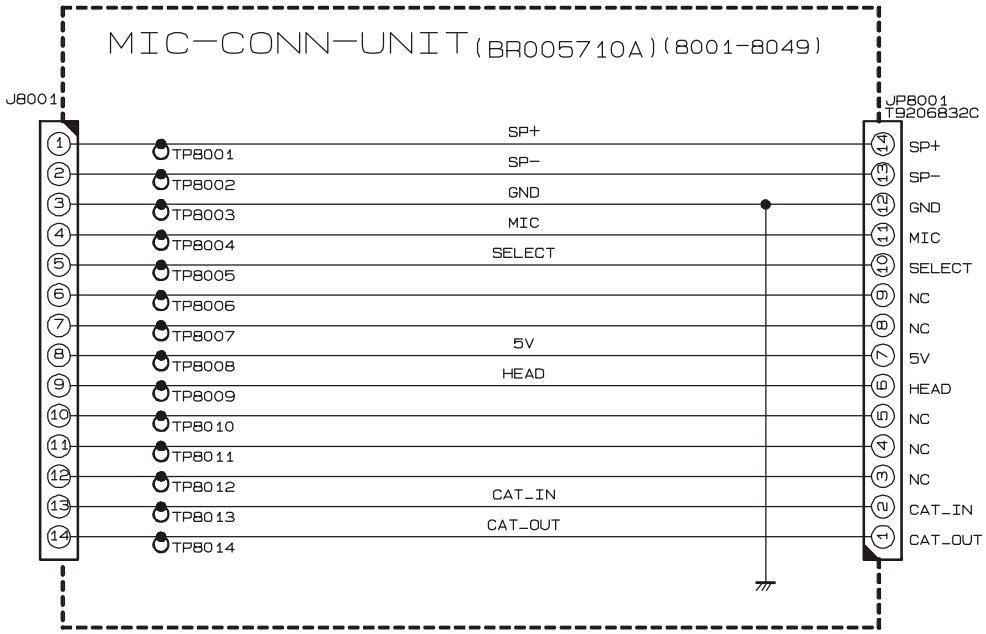
Side B

Parts List

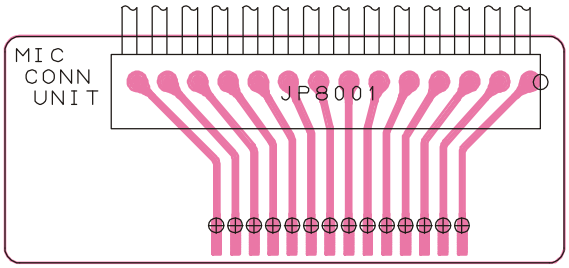
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
	PCB with Components					CB1645001				
	Printed Circuit Board					FR007350A		1-		
J 8101	CONNECTOR				TMP-J01X-A2	P1090255		1-		
JP8101	WIRE ASSY				GRA 350 TMP/TMP(B1)	T9318162		1-		

MIC-CONN Unit

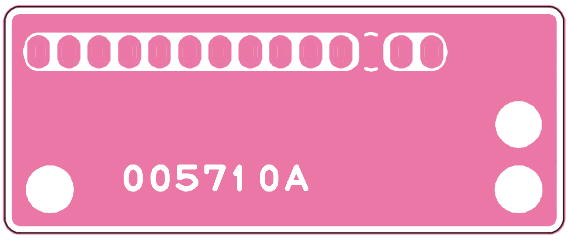
Circuit Diagram



Parts Layout



Side A



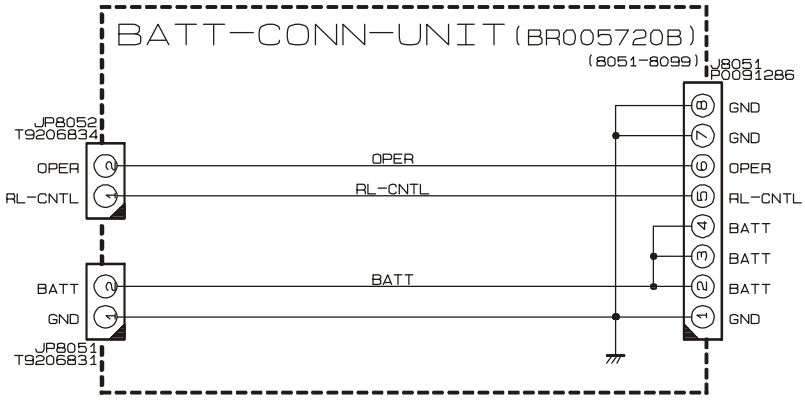
Side B

Parts List

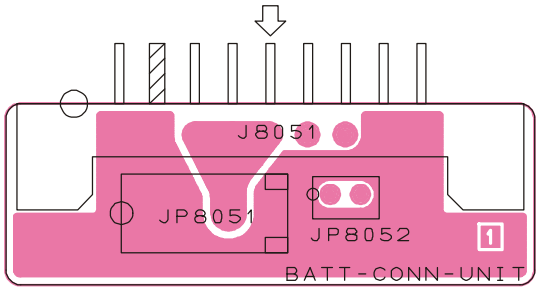
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
	PCB with Components					CB1555001				
	Printed Circuit Board					FR005710A		1-		
J 8002	CONNECTOR				KP247B2	P1091084A		1-		
JP8001	WIRE ASSY				AC002H	T9206832C		1-		
	HOLDER				(MIC)	RA0244300		1-		
	INTER CONNECTOR				(EXT)	RA0207300		1-		
	DOUBLE FACE				(EXT)	RA020830A		1-		
	SPACER				(EXT)	RA0236000		1-		
	PACKING PAD				(MIC)	RA0245100		1-		

BATT-CONN Unit

Circuit Diagram



Parts Layout



Side A

Side B

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
	PCB with Components					CB1556001				
	Printed Circuit Board					FR005720B		1-		
J 8051	CONNECTOR				3900133-08	P0091286		1-		
JP8051	WIRE ASSY					T9206831A		1-		
JP8052	WIRE ASSY					T9206834A		1-		

Note

TUNER-UNIT (BR007100A)

Inter Connection (Tuner Through)

JP1003 T9318180

JP1002 T9317994

To Power Amplifier

RL1016 ATXS216 DC4.5V

RL1014 ATXS216 DC4.5V

RL1015 ATXS216 DC4.5V

T1001 L0022703

C1025 0.001 B

C1026 0.001 B

C1027 0.001 B

L1001 0.33u

L1002 0.66u

L1003 1.3u

L1004 2.5u

L1005 5.25u

L1006 10.5u

RL1001 ATXS216 DC4.5V

RL1002 ATXS216 DC4.5V

RL1003 ATXS216 DC4.5V

RL1004 ATXS216 DC4.5V

RL1005 ATXS216 DC4.5V

RL1006 ATXS216 DC4.5V

C1012 0.001 B

C1013 0.001 B

C1014 0.001 B

C1015 0.001 B

C1016 0.001 B

C1017 0.001 B

RESET

TRANS-IN

TRANS-OUT

THRU

L1 L2 L3 L4 L5 L6

J1002 ***

C1001 22p 500V SL

L1007 L0022705A

L1008 L0022704A

L1009 L0022704A

L1010 L0022704A

RL1007 ATXS216 DC4.5V

RL1008 ATXS216 DC4.5V

RL1009 ATXS216 DC4.5V

RL1010 ATXS216 DC4.5V

RL1011 ATXS216 DC4.5V

RL1017 ATXS216 DC4.5V

C1018 0.001 B

C1019 0.001 B

C1020 0.001 B

C1021 0.001 B

C1022 0.001 B

C1028 0.001 B

L7 L8 L9

TOP-C

MID-C-1

MID-C-2

J1001 P1090255

ANTENNA

RESET

C1023 0.001 B

RL1012 ATXS216 DC4.5V

C1002 47p SL 500V

C1003 100p 500V SL

RL1013 ATXS216 DC4.5V

C1024 0.001 B

MID-C-1

MID-C-2

L1. L2. L3. L4. L5. L6. L7. L8. L9. TOP-C. MID-C-1. MID-C-2. TRANS-IN. TRANS-OUT. THRU. RESET

Q1002 NJM78L05UA

IN OUT

C1004 0.01 25V B

C1005 0.01 25V B

C1007 10 25V

C1005 10 16V

R1005 100K

Q1001 NJU3715G

13.2V

CLK

DATA

STROBE

GND

R1001 330

R1002 330

R1003 330

C1008 ***

R1004 100K

C1009 ***

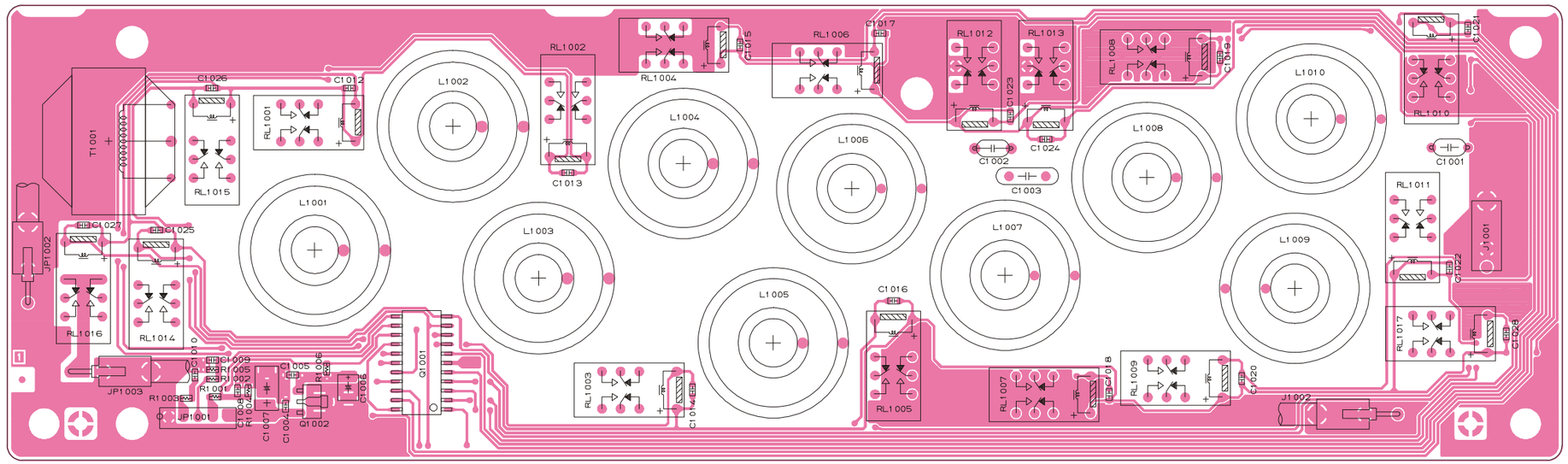
R1005 100K

C1010 ***

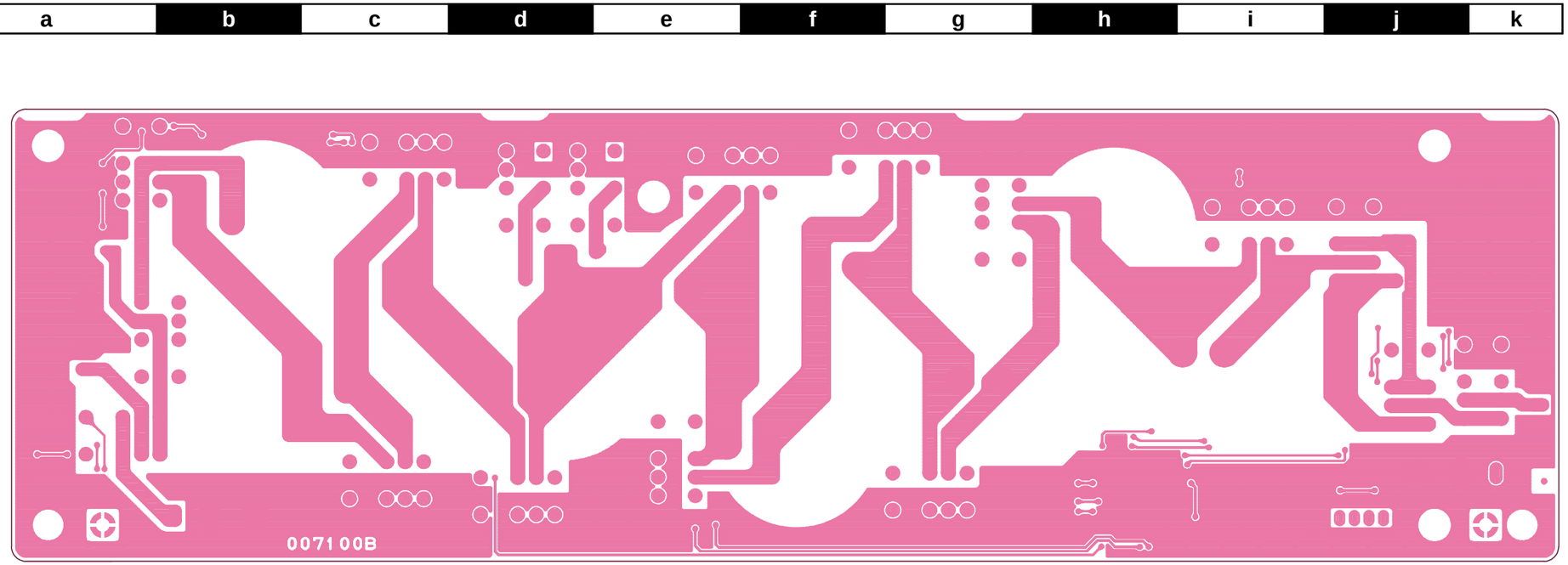
JP1001 T9206829A

Tuner Unit (ATU-1210: Option)

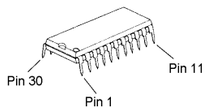
Parts Layout



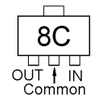
Side A



Side B



NJU3715G
(Q1001)

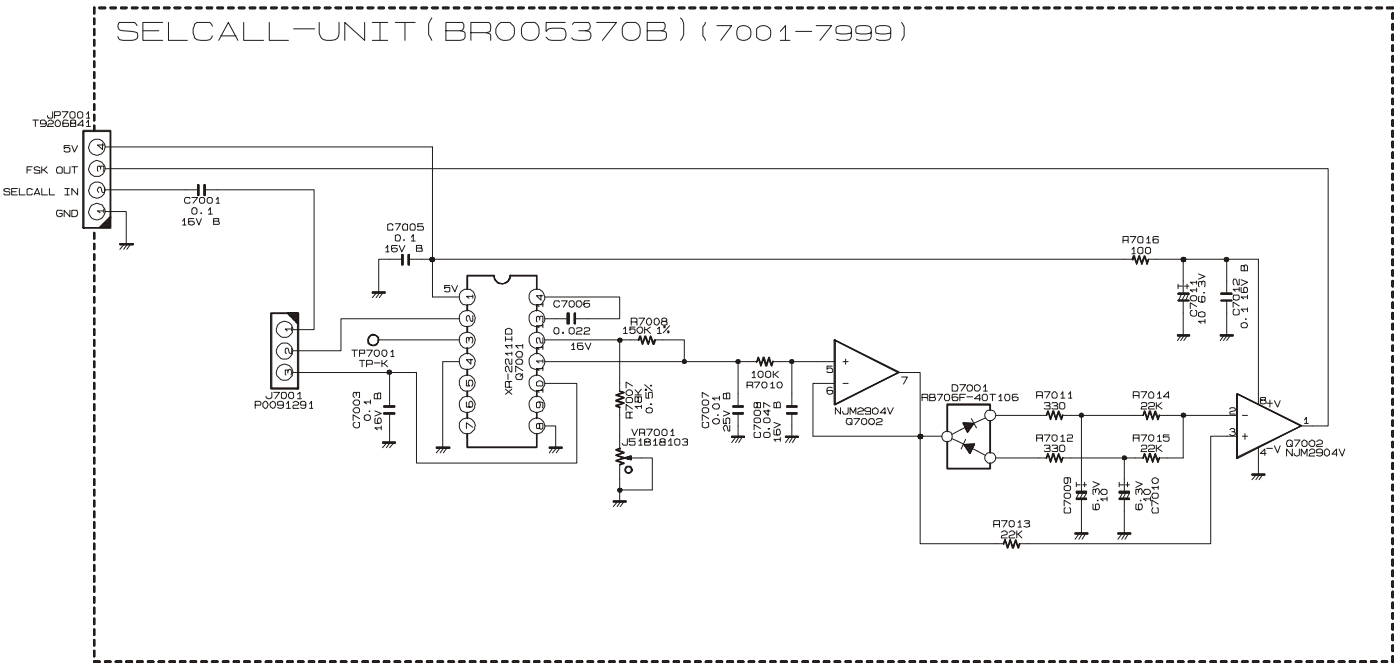


NJM78L05UA (8C)
(Q1002)

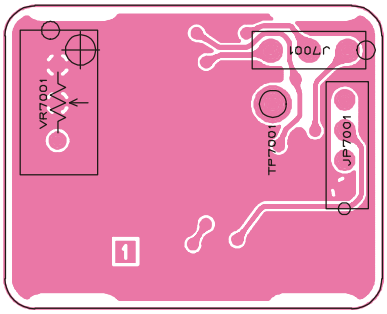
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
					*** ATU-1210 ***					
	Printed Circuit Board					FR007100B		1-		
C 1001	CERAMIC CAP.	22pF	500V	SL	DD05SL220K500	K00276220		1-	A	J1
C 1002	CERAMIC CAP.	47pF	500V	SL	DD05-979SL470K500	K26270029		1-	A	G1
C 1003	CERAMIC CAP.	100pF	500V	SL	DD09SL101J500	K00275101		1-	A	H2
C 1004	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B3
C 1005	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	B3
C 1006	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	A	C3
C 1007	CHIP TA.CAP.	10uF	25V		TEMSVC1E106M12R	K78140021		1-	A	B3
C 1012	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	C1
C 1013	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D2
C 1014	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	E3
C 1015	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	E1
C 1016	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	G3
C 1017	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	F1
C 1018	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	H3
C 1019	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	I1
C 1020	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	I3
C 1021	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	J1
C 1022	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	J2
C 1023	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	G1
C 1024	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	H1
C 1025	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	B2
C 1026	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	B1
C 1027	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	A2
C 1028	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	K3
J 1001	CONNECTOR				TMP-J01X-A2	P1090255		1-	A	K2
JP1001	WIRE ASSY				AC002H	T9206829A		1-	A	B3
JP1002	WIRE ASSY				RED 200 TMP/TMP	T9317994		1-	A	A2
JP1003	WIRE ASSY				GRA 202 TMP(B1)/TMP(B1)	T9318172		1-	A	A3
L 1001	TOROIDAL COIL	0.33uH			0.33U T68-6	L0022711A		1-	A	C2
L 1002	TOROIDAL COIL	0.66uH			0.66U T68-6	L0022710A		1-	A	D1
L 1003	TOROIDAL COIL	1.3uH			1.3U T68-6	L0022709A		1-	A	D2
L 1004	TOROIDAL COIL	2.5uH			2.5U T68-6	L0022708A		1-	A	E2
L 1005	TOROIDAL COIL	5.25uH			5.25U T68-6	L0022706A		1-	A	F3
L 1006	TOROIDAL COIL	10.5uH			10.5U T68-6	L0022707A		1-	A	F2
L 1007	TOROIDAL COIL				43T T68-2X2	L0022705A		1-	A	G2
L 1008	TOROIDAL COIL				61T T68-2X2	L0022704A		1-	A	H2
L 1009	TOROIDAL COIL				61T T68-2X2	L0022704A		1-	A	I2
L 1010	TOROIDAL COIL				61T T68-2X2	L0022704A		1-	A	I1
Q 1001	IC				NJU3715G(TE1)	G1092915		1-	A	C3
Q 1002	IC				NJM78L05UA TE1	G1091325		1-	A	C3
R 1001	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	B3
R 1002	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	B3
R 1003	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	B3
R 1004	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B3
R 1005	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B3
R 1006	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C3
RL1001	RELAY				ATXS216 DC4.5V	M1190169		1-	A	C1
RL1002	RELAY				ATXS216 DC4.5V	M1190169		1-	A	D2
RL1003	RELAY				ATXS216 DC4.5V	M1190169		1-	A	E3
RL1004	RELAY				ATXS216 DC4.5V	M1190169		1-	A	E1
RL1005	RELAY				ATXS216 DC4.5V	M1190169		1-	A	F3
RL1006	RELAY				ATXS216 DC4.5V	M1190169		1-	A	F1
RL1007	RELAY				ATXS216 DC4.5V	M1190169		1-	A	H3
RL1008	RELAY				ATXS216 DC4.5V	M1190169		1-	A	I1
RL1009	RELAY				ATXS216 DC4.5V	M1190169		1-	A	I3
RL1010	RELAY				ATXS216 DC4.5V	M1190169		1-	A	J1
RL1011	RELAY				ATXS216 DC4.5V	M1190169		1-	A	J2
RL1012	RELAY				ATXS216 DC4.5V	M1190169		1-	A	G1
RL1013	RELAY				ATXS216 DC4.5V	M1190169		1-	A	H1
RL1014	RELAY				ATXS216 DC4.5V	M1190169		1-	A	A2
RL1015	RELAY				ATXS216 DC4.5V	M1190169		1-	A	B1
RL1016	RELAY				ATXS216 DC4.5V	M1190169		1-	A	A2
RL1017	RELAY				ATXS216 DC4.5V	M1190169		1-	A	K3
T 1001	COIL PWR-WIDE				3A5 RIB10X20X10	L0022703		1-	A	A1

SELCALL Unit (SEL-1200: Option)

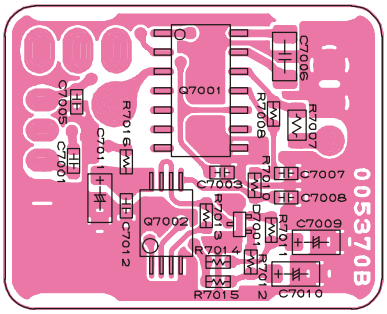
Circuit Diagram



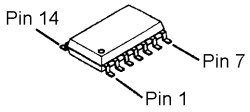
Parts Layout



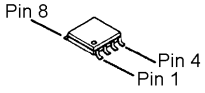
Side A



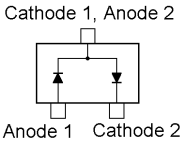
Side B



XR-2211ID
(Q7001)



NJM2904V
(Q7002)



RB706F-40T106 (3J)
(D7001)

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAY ADR
					*** SEL-1200 ***					
	Printed Circuit Board					FR005370B		1-		
C 7001	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	
C 7003	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	
C 7005	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	
C 7006	FILM CAP.	0.022uF	16V		ECHU1C223JB5	K57120011		1-	B	
C 7007	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	
C 7008	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	B	
C 7009	CHIP TA.CAP.	10uF	6.3V		TEMSVA20J106M-8R	K78080046		1-	B	
C 7010	CHIP TA.CAP.	10uF	6.3V		TEMSVA20J106M-8R	K78080046		1-	B	
C 7011	CHIP TA.CAP.	10uF	6.3V		TEMSVA20J106M-8R	K78080046		1-	B	
C 7012	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	
D 7001	DIODE				RB706F-40T106	G2070824		1-	B	
J 7001	CONNECTOR				IMSA-9202B-1-03-T	P0091291		1-	A	
JP7001	WIRE ASSY					T9206841		1-	A	
JP7011	WIRE ASSY				GRN 20 2/2	T50502000		1-	B	
P 7001	CONNECTOR				IMSA-9206H-T	P1090988		1-	A	
Q 7001	IC				XR-2211ID (TAPE)	G1093196		1-	B	
Q 7002	IC				NJM2904V-TE1	G1091677		1-	B	
R 7007	CHIP RES.	18k	1/10W	0.50%	RR1220P-183-D-T5	J24209201		1-	B	
R 7008	CHIP RES.	150k	1/16W	1%	RMC1/16 154FTP	J24183154		1-	B	
R 7010	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	
R 7011	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	
R 7012	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	
R 7013	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	
R 7014	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	
R 7015	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	
R 7016	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	
TP7001	TERMINAL				TP-K IPS-1136	Q5000050		1-	A	
VR7001	POT.				POT3106W-1-103	J51818103		1-	A	

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